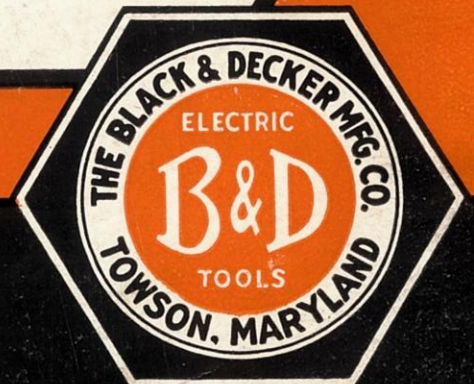


*Black &
Decker*

**PORTABLE
ELECTRIC
TOOLS**



1947

ELECTRIC TOOL HEADQUARTERS



"ELECTRIC TOOL HEADQUARTERS"

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The Most Complete Line of PORTABLE ELECTRIC TOOLS

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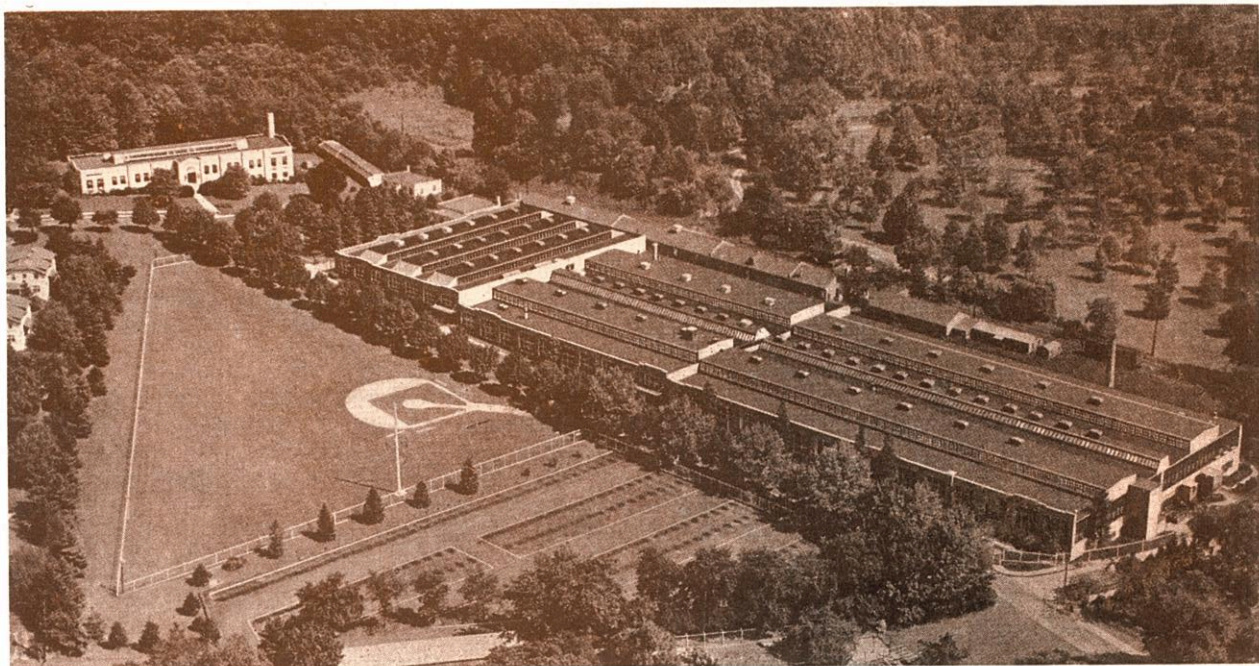
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For greater convenience and quicker service to users, Black & Decker Portable Electric Tools, Attachments and Supplies are sold through and carried in stock by leading automotive, hardware, electrical, industrial, plumbing, machinery and mill supply distributors throughout the world. Depend on your local distributor for expert help and advice on all tooling problems and as a convenient source for all your equipment and supply needs.

LEADING DISTRIBUTORS EVERYWHERE SELL BLACK & DECKER

Black & Decker



THE HOME OFFICES and factory of The Black & Decker Mfg. Co. are located in a modern plant at Towson, Maryland, equipped with up-to-the-minute production machinery and methods. Here a skilled and co-ordinated group of engineers, machinists and production experts build the world-famous Black & Decker line. Most of our employees come from the surrounding suburban and rural communities where their families and neighbors have attractive homes, comfortable farms and prosperous shops. This is the home of the world's largest manufacturer of portable electric tools for industrial, automotive, farm and home users.

In the case of Black & Decker, "the world's largest" is no idle boast. In addition to the great expanse of modern factory and office buildings at Towson, turning out more portable electric tools of more kinds than any other maker, there is a subsidiary company in England, whose equally modern plant is making and selling the same tools to British, European and other markets. Black & Decker companies in Canada, Australia and Brazil serve these busy industrial areas and our Export Department, with headquarters at Towson, is selling through distributors in every continent on the globe. There are 22 Black & Decker Factory Service Branches in the United States; three in Canada; seven in Great Britain; one in Australia and one in Brazil.



HARMONDSWORTH, ENGLAND

In our more than 30 years of electric tool development, we have always been able to offer you products of finest quality at reasonable prices, backed by a fair guarantee and sold through the most complete and convenient merchandising organization ever set up to serve electric tool users.

**"LEADING DISTRIBUTORS EVERYWHERE
SELL BLACK & DECKER"**



"ELECTRIC TOOL HEADQUARTERS"

1/4-Inch Junior Electric Drill

CATALOG No. 30

Specifications

Drilling Capacity: in Steel.....	up to 1/4"
in Hardwood.....	up to 1/2"
Spindle Speed: No-load.....	1800 R.P.M.
Full-load.....	1050 R.P.M.
Weight: Net.....	3 3/4 lbs.
Shipping.....	5 lbs.
Overall Length.....	10 3/4"
Standard Equipment — 3-conductor cable and plug; 3-jaw Jacobs threaded chuck and key; thumb control switch; "universal" motor.	
Standard Voltage — 110; also available for 220 or 250 volts.	
Catalog No. 30 (specify voltage)	
Price, complete	\$22.95

A PRACTICAL "handy" Drill for the user who wants a *good* low-priced Drill. Die-cast aluminum housings combine light weight and strength; are shaped to fit the hand comfortably. "Compo" bearings give long, smooth service. 3-jaw geared chuck is threaded on the spindle. The motor has plenty of power for hundreds of intermittent service jobs. An ideal Drill for the tool kit in maintenance work, automotive shops, electrical, carpentry, plumbing and cabinet work.

**1/4-INCH
JUNIOR DRILL**

Attachments and Supplies

No. 22148	Bench Drill Stand.....	\$15.00
No. 8169	Horizontal Drill Stand.....	1.70
No. 3071	Arbor for Grinding and Buffing Wheels..	.85



1/4-Inch Standard HOLGUN* Ball-Bearing Drill

CATALOG Nos. 345 and 346

A PERFECTLY proportioned "Handful of Power" of surprising compactness and smooth lines. "Pistol Grip and Trigger Switch," special ball spindle bearing, splined gear mounting, screened air inlets and full ball-bearing equipped. Available in seven spindle speeds from high torque at 500 R.P.M. to high speed at 5,000 R.P.M. Use Standard Holgun for regular production service; Low-speed Holgun for stainless steel and hard alloys.

Specifications

	Standard Speed Model	Low Speed Model
Capacity: in Steel.....	up to 1/4"	up to 1/4"
in Hardwood.....	up to 1/2"	up to 1/2"
Standard Speed: No-load.....	1700 R.P.M.*	500 R.P.M.*
Full-load.....	900 R.P.M.	225 R.P.M.
Net Weight.....	3 lbs.	3 3/4 lbs.
Shipping Weight.....	4 1/4 lbs.	4 1/2 lbs.
Overall Length.....	6 3/4"	7 1/8"
Spindle Offset.....	3/4"	3/4"
Catalog No. (specify voltage).....	345	346
Price, complete.....	\$32.50	\$38.00
*Optional No-load Speeds— (at no extra cost).....	{2500, 3500 or 5000 R.P.M.	{750 or 1000 R.P.M.

Standard Equipment—2-pole automatic-release trigger switch and locking pin, mounted as a unit with cord protector; 3-wire cable and plug; 3-jaw Jacobs threaded chuck and key; "universal" motor.

Equipped with No. 24449 Chuck Protector..... \$.85 extra

Standard Voltage—110; also available for 220 or 250 volts.

*Trade-mark Reg. U. S. Pat. Off.

**1/4-INCH
STANDARD
"HOLGUN"**

"ELECTRIC TOOL HEADQUARTERS"

Black & Decker

1/4-Inch Standard Ball-Bearing Drill

CATALOG No. 31

POPULAR general-purpose Drill of 1/4" capacity, for twist drills, wood augers, countersinks and Hole Saws. Well-balanced and shaped for portable use; an excellent drill press in Bench Stand.

Specifications

Capacity: in Steel up to 1/4";
in Hardwood up to 1/2".
Standard Speed: No-load 2,000 R.P.M.*;
Full-load 1,100 R.P.M.
Weight: Net 5 1/4 lbs.; Shipping 7 1/2 lbs.
Overall Length (including chuck) 12 1/16".
Standard Equipment — Automatic-release trigger switch and locking pin; 3-wire cable and plug; 3-jaw Jacobs threaded chuck and key; removable commutator cover; "universal" motor.

*Optional No-load Speeds (at no extra cost) 3,500 or 5,000 R.P.M.

Equipped with No. 24322 Chuck Protector \$1.00 extra

Standard Voltage — 110; also available for 32, 220 or 250 volts.

Catalog No. 31 (specify voltage)

Price, complete **\$38.00**



**1/4-INCH
STANDARD
DRILL**

1/4-Inch Heavy-Duty Ball-Bearing Drill

CATALOG Nos. 32 and 386

FULL-POWERED and built for constant production service. 1/4" capacity geared chuck and key are standard equipment. For frequent bit-changing, use "Portomatic" keyless chuck and patented gear lock.

Specifications

	Standard Geared Chuck	Portomatic Keyless Chuck
Capacity: in Steel	up to 1/4"	up to 1/4"
in Hardwood	up to 1/2"	up to 1/2"
Speed: No-load	2000 R.P.M.	2000 R.P.M.
Full-load	1280 R.P.M.	1280 R.P.M.
Weight: Net	6 3/4 lbs.	7 1/4 lbs.
Shipping	9 3/4 lbs.	10 1/4 lbs.
Overall Length	12 1/4"	12 1/2"
Catalog No. (specify voltage)	32	386

Price, complete **\$45.00 \$48.00**

Standard Equipment — 3-conductor cable and plug; two-pole automatic-release switch with locking pin; removable commutator cover; "universal" motor.

Standard Voltage — 110; also available for 220 or 250 volts.



**1/4-INCH
HEAVY-DUTY
DRILL**

5/16-Inch Heavy-Duty Ball-Bearing Drill

CATALOG Nos. 360 and 387

A FULL-POWERED production Drill. 5/16" capacity geared chuck and key are standard equipment. If job requires frequent changing of bits, use "Portomatic" keyless chuck and patented gear lock.

Specifications

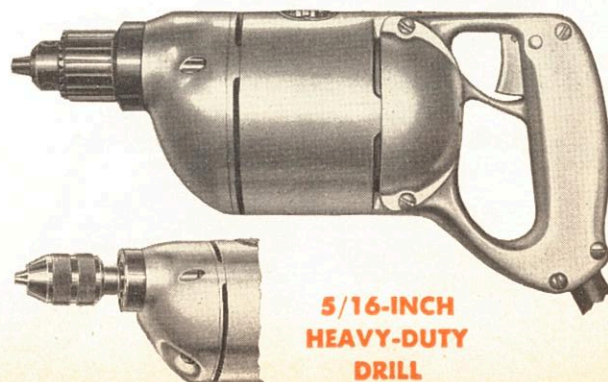
	Standard Geared Chuck	Portomatic Keyless Chuck
Capacity: in Steel	up to 5/16"	up to 5/16"
in Hardwood	up to 3/8"	up to 3/8"
Speed: No-load (Standard)	1400 R.P.M.*	1400 R.P.M.*
Full-load	920 R.P.M.	920 R.P.M.
Weight: Net	7 lbs.	7 1/2 lbs.
Shipping	9 3/4 lbs.	10 1/4 lbs.
Overall Length	12 3/8"	12 5/8"
Catalog No. (specify voltage)	360	387

Price, complete **\$48.00 \$51.00**

Standard Equipment—3-conductor cable and plug; two-pole automatic-release switch and locking pin; removable commutator cover; "universal" motor.

Standard Voltage—110; also available for 220 or 250 volts.

*Special Speed—1000 R.P.M. (for either unit) \$2.50 extra



**5/16-INCH
HEAVY-DUTY
DRILL**



"ELECTRIC TOOL HEADQUARTERS"

3/8-Inch Standard Ball-Bearing Drill

CATALOG No. 490

POPULAR general-purpose Drill with extra chuck capacity so often needed in "odd-job" work. Spindle speed suited to smaller Hole Saws, wood augers and twist drills. An excellent drill press in Bench Stand.

Specifications

Capacity: in Steel	up to 3/8"
in Hardwood	up to 5/8"
Speed: No-load	700 R.P.M.*
Full-load	360 R.P.M.
Weight: Net	6 1/8 lbs.
Shipping	8 1/2 lbs.
Overall Length	13 3/8"
Catalog No. (specify voltage)	490
Price, complete	\$45.00

Standard Equipment — Automatic-release trigger switch with locking pin; 3-wire cable with plug; 3-jaw Jacobs threaded chuck and key; "universal" motor.

*Optional no-load speeds

{ 350, 500, or
{ 1100 R.P.M.

(at no extra cost)

Standard Voltage — 110; also available for 220 or 250 volts.

This Drill can be furnished with 5/16" geared chuck and no load speed of 1,100 R.P.M. at no extra cost.



**3/8-INCH
STANDARD
DRILL**

3/8-Inch Heavy-Duty Ball-Bearing Drill

CATALOG No. 362

DESIGN and construction features same as the 1/2" Standard Drill. The spindle speed, weight and operating balance of this unit are ideal for production drilling of 3/8" holes at high speed.

Specifications

Capacity: in Steel	up to 3/8"	in Hardwood	up to 3/4"
Speed: No-load	900 R.P.M.	Full-load	625 R.P.M.
Weight: Net	9 1/2 lbs.	Shipping	12 3/4 lbs.
Overall length	13 1/2"		

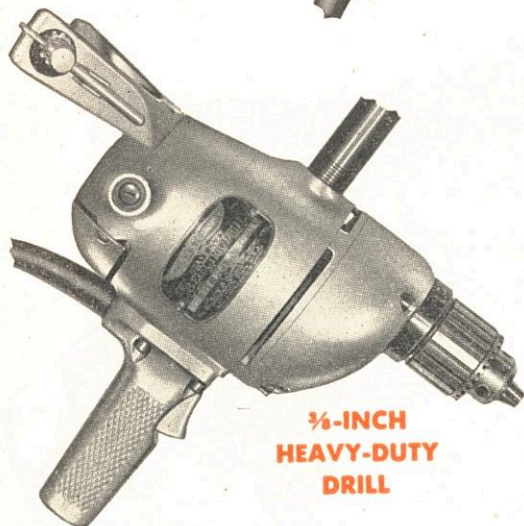
Standard Equipment — 3-conductor cable and plug; 3-jaw Jacobs threaded chuck and key; automatic-release trigger switch with locking pin; spade handle with key holder; detachable pipe handle; "universal" motor.

Standard Voltage — 110; also available for 220 or 250 volts.

Catalog No. 362 (specify voltage)

Price, complete

\$53.00



**3/8-INCH
HEAVY-DUTY
DRILL**

1/2-Inch Junior Electric Drill

CATALOG No. 38

A PRACTICAL general purpose Drill with correct spindle speed for a wide variety of uses. Die-cast aluminum housings stand hard use, light in weight. Ample power for intermittent service. 3-jaw geared chuck is threaded on spindle. Use this Drill to drive twist drills, wood augers, Hole Saws, in repair and maintenance of machinery, equipment and appliances.

Specifications

Drilling Capacity: in Steel	up to 1/2"
in Hardwood	up to 1"
Spindle Speed: No-load	375 R.P.M.
Full-load	240 R.P.M.
Weight: Net	9 1/8 lbs.
Shipping	11 3/4 lbs.
Overall Length	14 1/4"

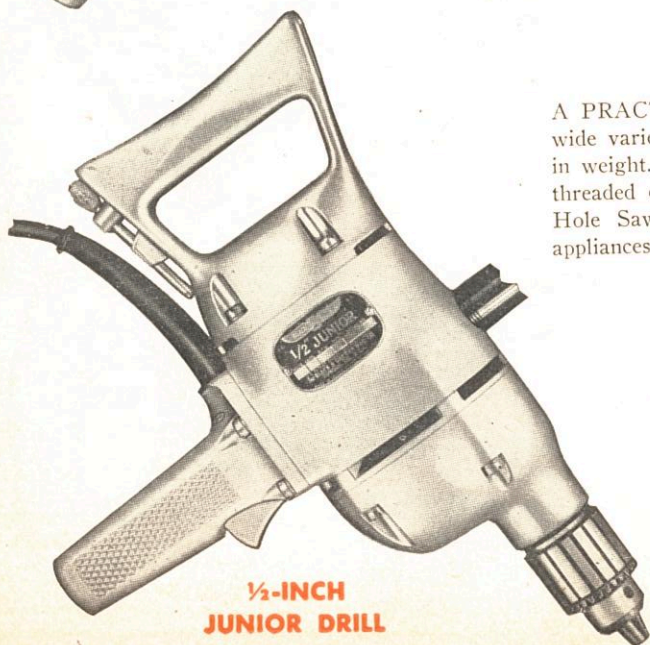
Standard Equipment—3-wire cable and plug; 3-jaw Jacobs threaded chuck and key; automatic-release trigger switch with locking pin; spade handle with chuck-key holder; detachable pipe handle; "universal" motor.

Standard Voltage—110; also available for 220 or 250 volts.

Catalog No. 38 (specify voltage)

Price, complete

\$38.00



**1/2-INCH
JUNIOR DRILL**

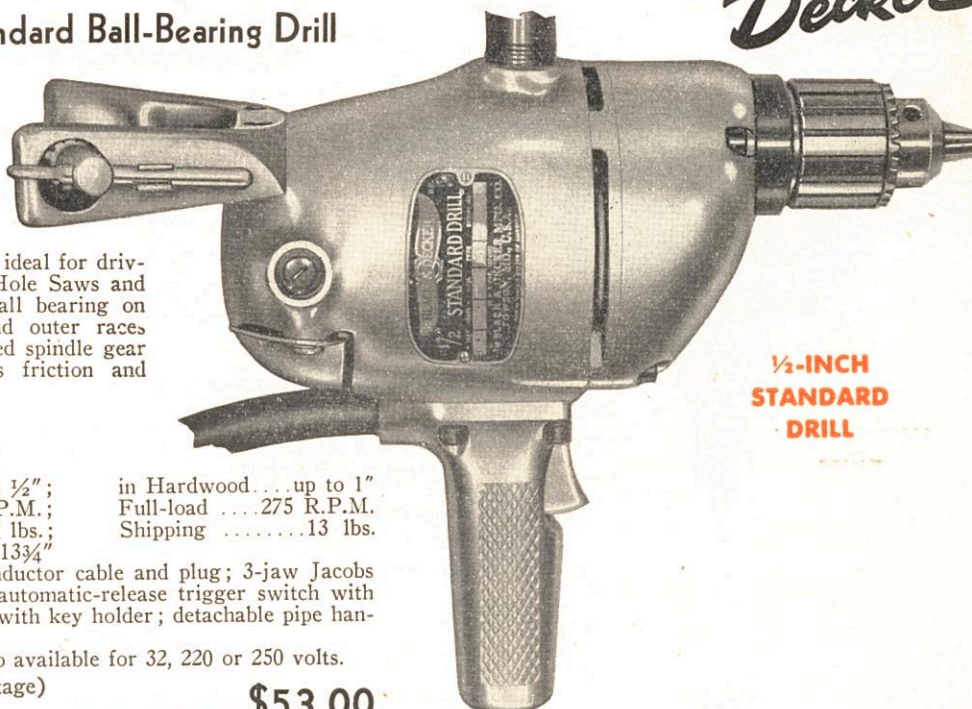
"ELECTRIC TOOL HEADQUARTERS"

Black & Decker

1/2-Inch Standard Ball-Bearing Drill

CATALOG No. 361

THE most popular general purpose Electric Drill with perfect operating balance, close coupled construction, minimum spindle offset and horizontal spade handle. Spindle speed is ideal for driving all types of twist drills, Hole Saws and wood augers. Deep groove ball bearing on chuck spindle with inner and outer races locked in place. Spline-mounted spindle gear increases strength, minimizes friction and wear.



**1/2-INCH
STANDARD
DRILL**

Specifications

Capacity: in Steel.....up to 1/2";	in Hardwood.....up to 1"
Speed: No-load.....400 R.P.M.;	Full-load.....275 R.P.M.
Weight: Net.....9 3/4 lbs.;	Shipping.....13 lbs.
Overall Length.....13 3/4"	

Standard Equipment — 3-conductor cable and plug; 3-jaw Jacobs threaded chuck and key; automatic-release trigger switch with locking pin; spade handle with key holder; detachable pipe handle; "universal" motor.

Standard Voltage — 110; also available for 32, 220 or 250 volts.

Catalog No. 361 (specify voltage) **\$53.00**

Price, complete.....

1/2-Inch Heavy-Duty Ball-Bearing Drill

CATALOG No. 40

A CONSTANT-SERVICE production tool for heavy-duty drilling in metal, wood boring, driving Hole Saws and cylinder hones. Helical armature pinion and intermediate gear; alloy steel gears.

Specifications

Capacity: in Steel.....up to 1/2";	in Hardwood up to 1"
Speed: No-load (Standard) 500 R.P.M.*;	Full-load 330 R.P.M.
Weight: Net.....17 lbs.;	Shipping.....19 1/2 lbs.
Overall Length.....18 1/2"	

Standard Equipment—3-conductor cable with plug; 3-jaw Jacobs chuck, key and chain; automatic release switch with locking pin; spade handle; detachable pipe handle; "universal" motor.

Optional—No. 1 or No. 2 Morse Taper Socket, instead of chuck, no extra charge.

Standard Voltage—110; also available for 220 or 250 volts.

Catalog No. 40 (specify voltage) **\$68.00**

Price, complete.....

*Special no-load speeds, 750 R.P.M. or 900 R.P.M.....\$5.00 extra

No. 22555 Feed Screw.....\$ 6.90

Reversing Switch.....10.00



**1/2-INCH
HEAVY-DUTY
DRILL**

5/8-Inch Standard Ball-Bearing Drill

CATALOG No. 238

MOTOR is mounted on ball bearings. Chuck spindle operates on Timken tapered roller bearings, insuring smooth power.

Specifications

Drilling Capacity:	
in Steel.....5/32" to 5/8";	in Hardwood.....1 1/4"
Speed: No-load.....300 R.P.M.;	Full-load.....180 R.P.M.
Weight: Net.....17 lbs.;	Shipping.....21 3/4 lbs.
Overall Length.....18"	

Standard Equipment—3-wire cable and plug; 5/8" Jacobs chuck, key and chain; automatic-release switch with locking pin; spade handle; detachable pipe handle; "universal" motor.

Optional—No. 2 Morse Taper Socket instead of chuck, no extra charge.

Standard Voltage—110; also available for 220 or 250 volts.

Catalog No. 238 (specify voltage) **\$60.00**

Price, complete.....

No. 19930 Feed Screw Assembly.....\$ 6.90



**5/8-INCH
STANDARD
DRILL**



"ELECTRIC TOOL HEADQUARTERS"



**5/8-INCH
HEAVY-DUTY
DRILL**

5/8-Inch Heavy-Duty Ball-Bearing Drill

CATALOG No. 42

ROLLER-BEARING equipment on chuck spindle, to withstand severe side and end thrust; ball-bearing construction throughout. Amply powered and built for heavy-duty service.

Specifications

Capacity: in Steel..... $\frac{5}{32}$ " to $\frac{5}{8}$ ";	in Hardwood .....up to $1\frac{1}{4}$ "
Speed: No-load .....450 R.P.M.;	Full-load .....265 R.P.M.
Weight: Net .....21 $\frac{1}{4}$ lbs.;	Shipping .....27 $\frac{3}{4}$ lbs.
Overall Length .....20"	

Standard Equipment — 3-conductor cable and plug; 3-jaw Jacobs chuck, key and key chain; automatic-release switch with locking pin; spade handle; detachable pipe handle; "universal" motor.

Optional — No. 2 Morse Taper Socket, instead of chuck, no extra charge.

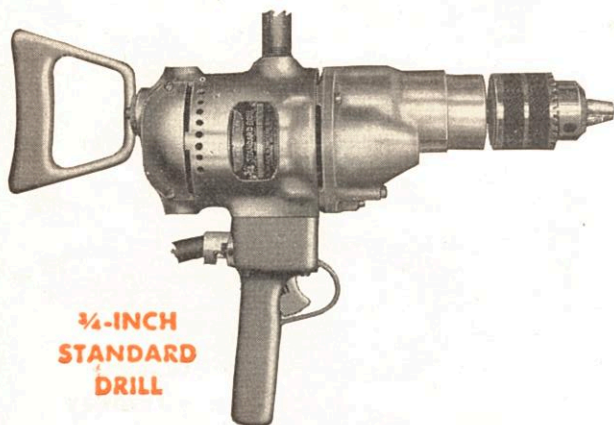
Standard Voltage — 110; also available for 220 or 250 volts.

Catalog No. 42 (specify voltage)

Price, complete **\$85.00**

No. 16962 Feed Screw\$ 6.90

Reversing Switch 10.00



**3/4-INCH
STANDARD
DRILL**

3/4-Inch Standard Ball-Bearing Drill

CATALOG No. 239

A POWERFUL tool, with triple gear reduction for low spindle speed. Motor mounted on ball bearings, chuck spindle operates on Timken tapered roller bearings.

Specifications

Drilling Capacity:	
in Steel $\frac{3}{16}$ " to $\frac{3}{4}$ ";	in Hardwood .....1 $\frac{1}{2}$ "
Speed: No-load .....250 R.P.M.;	Full-load .....155 R.P.M.
Weight: Net .....19 $\frac{1}{4}$ lbs.;	Shipping .....25 $\frac{1}{2}$ lbs.
Overall Length.....18 $\frac{3}{4}$ "	

Standard Equipment—3-wire cable and plug; 3-jaw Jacobs chuck, key and key chain; automatic-release switch with locking pin; spade handle with chuck-key holder; detachable pipe handle; "universal" motor.

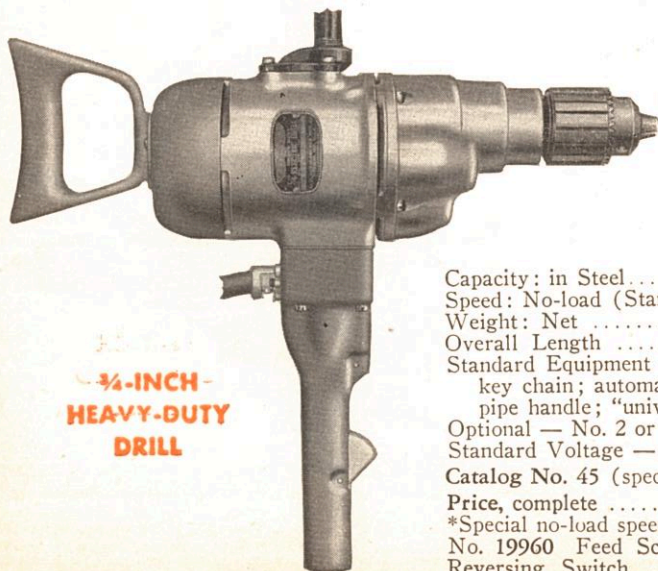
Optional — No. 2 or No. 3 Morse Taper Socket instead of chuck, no extra charge.

Standard Voltage — 110; also available for 220 or 250 volts.

Catalog No. 239 (specify voltage)

Price, complete **\$68.00**

No. 19930 Feed Screw Assembly.....\$ 6.90



**3/4-INCH-
HEAVY-DUTY
DRILL**

3/4-Inch Heavy-Duty Ball-Bearing Drill

CATALOG No. 45

CHUCK spindle equipped with Timken taper-roller bearings; all other shafts mounted on ball bearings. Extra long switch handle and pipe handle for complete control and balance.

Specifications

Capacity: in Steel..... $\frac{3}{16}$ " to $\frac{3}{4}$ ";	in Hardwood .....up to $1\frac{1}{2}$ "
Speed: No-load (Standard).....375 R.P.M.*;	Full-load .....200 R.P.M.
Weight: Net .....27 $\frac{1}{4}$ lbs.;	Shipping .....34 lbs.
Overall Length .....21"	

Standard Equipment — 3-conductor cable and plug; 3-jaw Jacobs chuck, key and key chain; automatic-release switch with locking pin; spade handle; detachable pipe handle; "universal" motor.

Optional — No. 2 or No. 3 Morse Taper Socket instead of chuck, no extra charge.

Standard Voltage — 110; also available for 220 or 250 volts.

Catalog No. 45 (specify voltage)

Price, complete **\$97.00**

*Special no-load speeds; 275, 600, or 900 R.P.M.\$5.00 extra

No. 19960 Feed Screw\$ 6.90

Reversing Switch 10.00

"ELECTRIC TOOL HEADQUARTERS"

Black & Decker

1-Inch Heavy-Duty Ball-Bearing Drill

CATALOG No. 47

(For Twist Drills with No. 3 Morse Taper Shanks)

Specifications

Drilling Capacity: in Steel.....1"
(With 3-2 or 3-1 Reducing Sleeve, range is extended down to 1/8")
Reaming Capacity: Light up to 3/4"; Heavy.....up to 5/8"
Speed: No-load.....350 R.P.M.*; Full-load.....200 R.P.M.
Weight: Net.....28 1/2 lbs.; Shipping.....35 1/2 lbs.
Overall Length.....20"

Standard Equipment — 3-conductor cable and plug; No. 3 Morse Taper Socket; spade handle and detachable pipe handle; instant-release safety switch with locking pin; "universal" motor.
Standard Voltage — 110; also available for 220 or 250 volts.

Catalog No. 47 (specify voltage)

Price, complete.....\$115.00

*Special Speeds (\$5.00 extra) — 250 or 600 R.P.M.

No. 19960 Feed Screw.....\$ 6.90

Reversing Switch.....10.00



**ONE-INCH
HEAVY-DUTY
DRILL**

1 1/4-Inch Heavy-Duty Ball-Bearing Drill

CATALOG No. 494

(For Twist Drills with No. 3 Morse Taper Shanks)

OUR LARGEST and most powerful Drill, with extra long safety switch and pipe handles. Motor housing is cast with adaptor pad to fit this Drill to No. 80 Drill Stand.

Specifications

Drilling Capacity: in Steel.....up to 1 1/4"
(With 3-2 or 3-1 Reducing Sleeve, range is extended down to 1/8")
Reaming Capacity: Light up to 1"; Heavy.....up to 3/4"
Speed: No-load.....250 R.P.M.*; Full-load.....160 R.P.M.
Weight: Net.....32 lbs.; Shipping.....40 lbs.
Overall Length.....20 1/2"

Standard Equipment — 3-conductor cable and plug; No. 3 Morse Taper Socket; spade handle and detachable pipe handle; instant-release safety switch with locking pin; "universal" motor.
Standard Voltage — 110; also available for 220 or 250 volts.

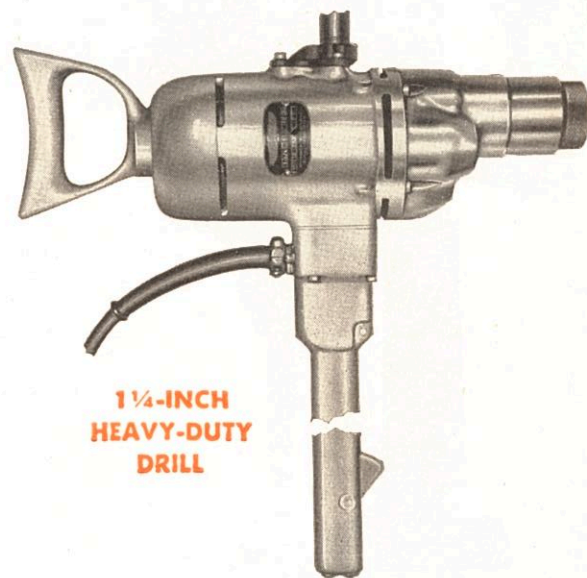
Catalog No. 494 (specify voltage)

Price, complete.....\$125.00

*Special No-load Speeds (\$5. extra).....350, 600, 800 or 900 R.P.M.

No. 19960 Feed Screw.....\$ 6.90

Reversing Switch.....10.00



**1 1/4-INCH
HEAVY-DUTY
DRILL**

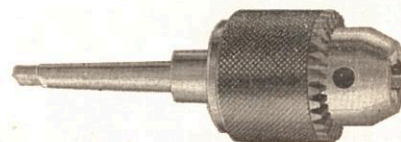
Chucks Mounted on Morse Taper Arbors

No. 1585 5/8" Chuck on No. 2 M. T. Arbor, for all 3/8" H.D. Drills, except Types D and F.....\$10.25
No. 22083 5/8" Chuck with No. 3 Morse Taper Arbor, to fit 1" and 3/4" H.D. Drills, Types D and F.....10.75
No. 10601 3/4" Chuck with No. 3 M. T. A., to fit 1" Drills and 3/8" Heavy-Duty Types D and F.....13.75
No. 3151 No. 2 Morse Taper Arbor only.....1.25
No. 10949 No. 3 Morse Taper Arbor only.....1.75

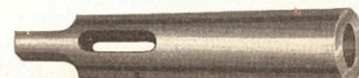
Morse Taper Sockets and Reducing Sleeves

For use with taper shank bits in all drills normally equipped with Jacobs chucks, from 1/4" to 3/4" sizes.

No. 23009 No. 1 Morse Taper Socket, threaded for 1/4" Std.; 1/4" H.-D.; 5/16" Util.; 5/16" H.-D.; 3/8" Std.; 3/8" H.-D.; 1/2" Jr.; 1/2" Std.....\$4.80
No. 18849 No. 1 Morse Taper Socket for 3/8" Drill.....4.80
No. 11066 No. 1 Morse Taper Socket for 1/2" Drill.....4.80
No. 11676 No. 1 Morse Taper Socket for 3/8" and 1/2" Drills.....4.80
No. 25981 No. 2 Morse Taper Socket, threaded for 1/4" Std.; 1/4" H.-D.; 5/16" Util.; 5/16" H.-D.; 3/8" Std.; 3/8" H.-D.; 1/2" Jr.; 1/2" Std.....5.75
No. 12186 No. 2 Morse Taper Socket for 1/2" H.-D.....5.75
No. 11067 No. 2 Morse Taper Socket for 3/8" and 1/2" Drills.....5.75
No. 12849 No. 3 Morse Taper Socket for 3/8" and 1/2" Drills.....6.90
To adapt Morse Taper Sockets to next smaller taper bits:
No. 4122 No. 4-3 Reducing Sleeve.....2.50
No. 3153 No. 3-2 Reducing Sleeve.....2.00
No. 3152 No. 2-1 Reducing Sleeve.....1.50
No. 22480 No. 3-1 Reducing Sleeve.....2.00



CHUCK ON M. T. ARBOR

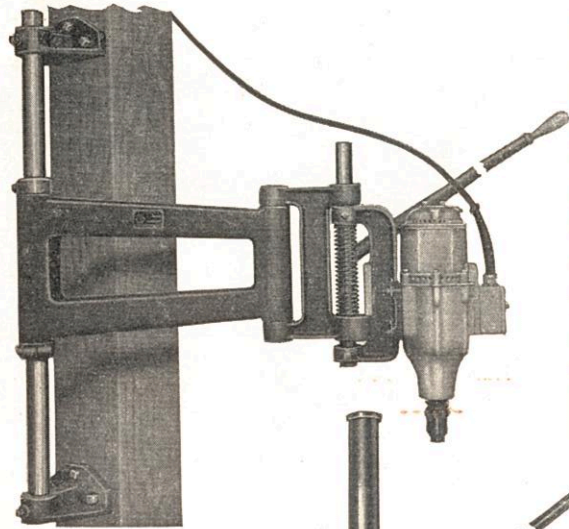


REDUCING SLEEVE



"ELECTRIC TOOL HEADQUARTERS"

Radial Arm



RADIAL ARM

THIS Radial Arm is particularly adapted to chain production methods. Arm has vertical adjustment up and down column and can be swung to any desired position.

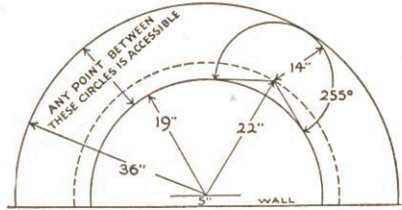
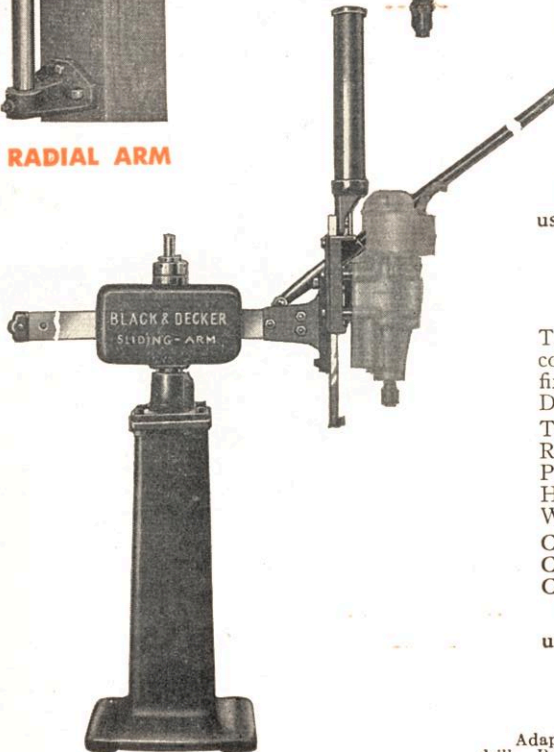


Diagram of operating range and areas showing maximum and minimum radii.

Travel of Arm on column.....24"
Vertical travel of Bracket.....4"
Angular adjustment, electrical tool bracket.....255°
Angle of swing.....180°
Distance, center of column to elbow.....22"
Elbow to spindle electric tool.....14"
Effective area of operation is within radii from 19" to 36" from column.

Weight: Net180 lbs.; Shipping235 lbs.
Catalog No. 20057
Price, complete**\$120.00**

In ordering be sure to specify type and size of Electric Tool to be used, so that the proper adapter will be supplied on the bracket.



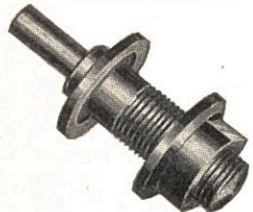
SLIDING ARM

Sliding Arm

THE Sliding Arm operates on ball and roller bearings and is furnished complete with pedestal. Illustration shows Sliding Arm equipped with fixed head. Completely equipped with brackets and adapters for Electric Drills, Screw Drivers and Nut Runners.

Total travel of slide (horizontal).....26½"; Travel of tool in bracket.....4"
Radius for operating (minimum).....21½"; (maximum).....49"
Pivotal Arc (pedestal mounted).....360°
Height adjustment of supporting pedestal column.....24"
Weight: Net (pedestal mounted).....415 lbs.; Shipping490 lbs.
Cat. No. 9756 Pedestal mounting, 4" travel, fixed head.....\$300.00
Cat. No. 10396 Pedestal mounting, 8" travel, fixed head.....300.00
Cat. No. 31458 Pedestal mounting, 4" travel, adjustable head.....330.00

In ordering be sure to specify type and size of Electric Tool to be used, so that the proper adapter will be supplied on the bracket.



WHEEL ARBOR

Wheel Arbors

Adapt ¼" and ½" Drills to light grinding and wire brushing by holding wheels in chuck of drill. Body of arbor is ½" diam. and will take 3" and 4" wheels.

No. 3071 ¼" Drill Arbor (½" diam.; ¼" shank).....\$0.85
No. 8449 ½" Drill Arbor (½" diam.; ½" shank).....1.75

Sanding Pad Arbor

No. 23041 Arbor for 5" Sanding Pad; fits ¼" H.-D., ⅝" and ¾" Drills (⅝"-11 thread spindle; ¼" shank).....\$0.50

Auxiliary Side Handles

Improve control and balance of end handle Drills and Screw Drivers. Clamp around spindle housing; adjustable radially to any convenient position.

No. 22178 Auxiliary Side Handle for ¼" and ⅝" H.-D. Drills.....\$2.75
No. 26958 Auxiliary Side Handle for ¼" and ⅝" Std. Drills.....2.75
No. 30426 Side Handle for No. 14 Positive and Adjustable Screw Drivers.....2.75
No. 30427 Side Handle for No. 18 Positive and Adjustable Screw Drivers.....2.75



SIDE HANDLE

Horizontal Drill Stands (Shown on next page)

With this stand, drills can be used for stationary drilling, reaming, light buffing, grinding and wire brushing. The stand is screwed or clamped to the bench and holds the drill rigidly by means of an adjustable chain.

No. 23046 Drill stand for current models, ¼" Std.; ¼" H.-D.; ⅝" H.-D.; ¾" Std.....\$3.15
Weight: Net.....3¾ lbs.; Shipping.....4 lbs.
No. 8169 Drill stand for ¼" Junior (types A and B).....1.70
Weight: Net.....1¼ lbs.; Shipping.....1¾ lbs.

"ELECTRIC TOOL HEADQUARTERS"

Black & Decker

DRILL STANDS

INCREASE the usefulness of Black & Decker Drills, Screw Drivers and Tappers by converting the portable unit to a drill press for heavy-duty work. Available in Bench type for all sizes; size 60 also in Post and Pedestal types.

Handle leverage multiplies working pressure; feeds smoothly for accurate work. Tool bracket adjustable for height and radial position. Adjustments for tool size eliminate adapters; one stand fits several units.

SIZE 20 DRILL STAND —

Fits all Black & Decker end-handle Drills from $\frac{1}{4}$ " Junior to $\frac{3}{8}$ " Standard; the SCRUGUN, TAPGUN, No. 14 and No. 18 Screw-Drivers and $\frac{1}{4}$ " Tapper. Maximum feed is 2"; from C/L Bit to C/L Column is $5\frac{1}{4}$ ".

CAT. No. 22148 BENCH DRILL STAND —
Net Weight 16 lbs.; shipping 19½ lbs. Price...\$15.00

SIZE 40 DRILL STAND —

Fits $\frac{3}{8}$ " Heavy-Duty, $\frac{1}{2}$ " Junior, $\frac{1}{2}$ " Utility, $\frac{1}{2}$ " Standard Drills. Maximum feed is 4"; from C/L Bit to C/L Column is 6".

CAT. No. 22145 BENCH DRILL STAND —
Net Weight 30 lbs.; shipping 37 lbs. Price...\$22.00

SIZE 60 DRILL STAND —

Fits all Black & Decker side-handle Drills from $\frac{1}{2}$ " Heavy-Duty to the 1" Heavy-Duty. Maximum feed is 4"; from C/L Bit to C/L Column is 8".

CAT. No. 13857 BENCH DRILL STAND —
Net Weight 59 lbs.; shipping 69 lbs. Price...\$32.00

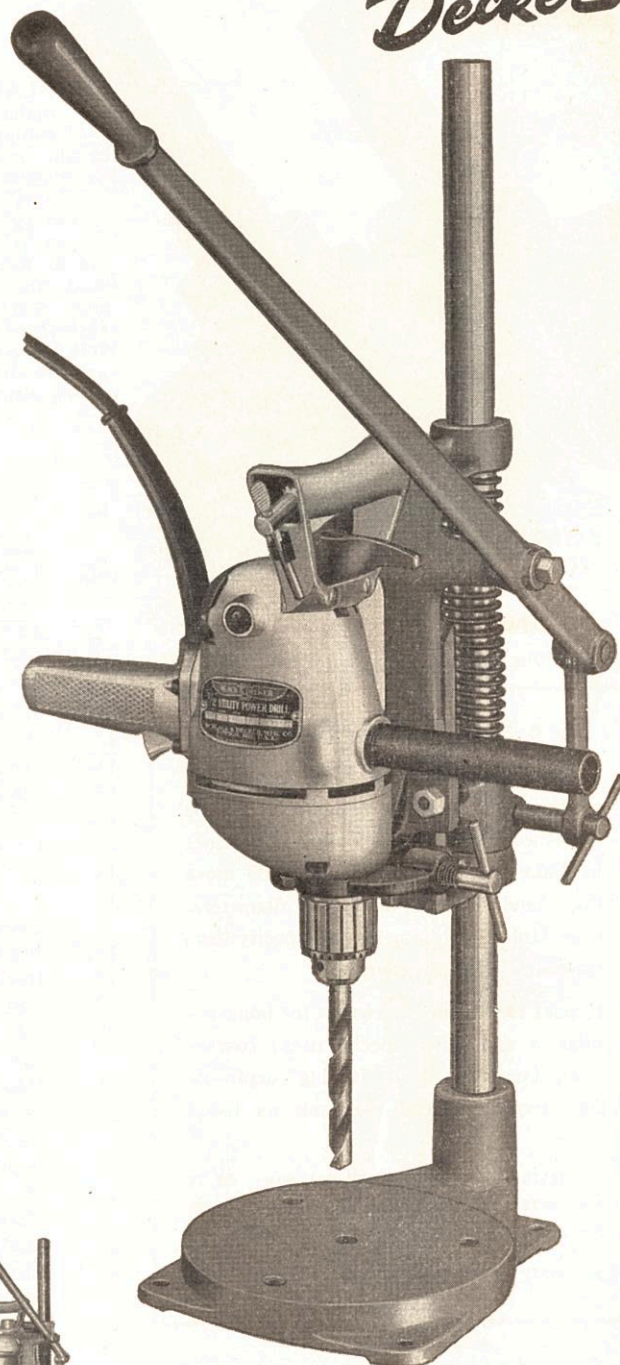
CAT. No. 31454 POST DRILL STAND —
Net Weight 87 lbs.; shipping 112 lbs. Price...\$38.00

CAT. No. 31455 PEDESTAL DRILL STAND —
Net Weight 109 lbs.; shipping 132 lbs. Price...\$40.00

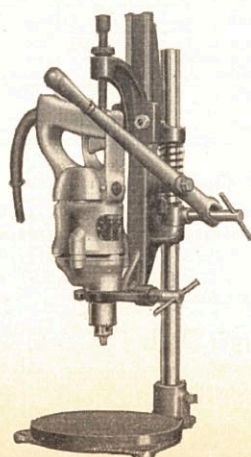
SIZE 80 DRILL STAND —

Fits the 1¼" Heavy-Duty Drill only. Maximum feed is 4"; from C/L Bit to C/L Column is 12".

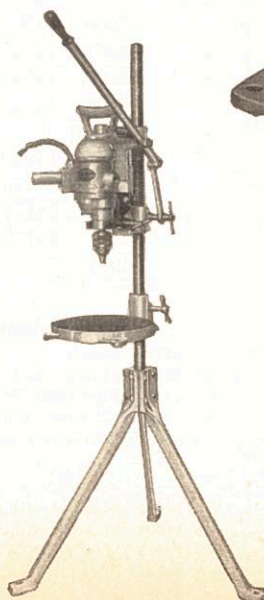
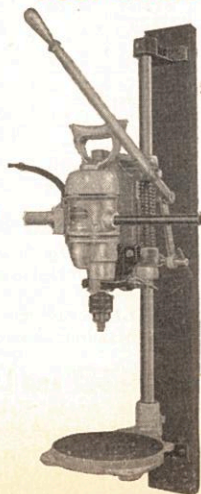
CAT. No. 26607 BENCH DRILL STAND —
Net Weight 73 lbs.; shipping 90 lbs. Price...\$45.00



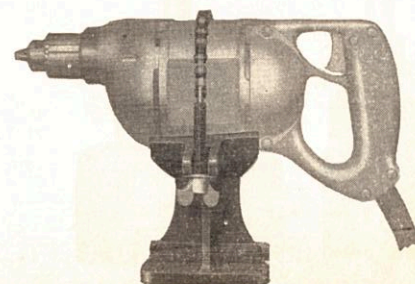
SIZE 20 STAND



POST STAND



SIZE 40 BENCH STAND



HORIZONTAL STAND

← PEDESTAL STAND



"ELECTRIC TOOL HEADQUARTERS"

A Complete Line of Hole Saws

BLACK & DECKER Hole Saws will cut clean, round holes in any material a hacksaw will cut. They can be used with any Drill or spindle equipped with a correct chucking device, but the power and speed of the spindle will govern the size Hole Saw to be used and the results obtained. We suggest the following limits on Black & Decker Drills:

- On $\frac{1}{4}$ " low-speed HOGUN.....not larger than $\frac{1}{8}$ " Hole Saw
- On $\frac{3}{8}$ " Standard Drill.....not larger than $\frac{1}{2}$ " Hole Saw
- On $\frac{1}{2}$ " Junior and $\frac{1}{2}$ " Standard.....not larger than $\frac{3}{4}$ " Hole Saw

Hole Saws are available in three types: *Coarse-tooth tungsten steel* for wood, fibre, bakelite, cast iron and all thick, coarse materials; *Fine-tooth tungsten steel* for sheet metal, steel, porcelain and all thin or sheet materials; *High-speed steel* for hard alloys and for longer service on production work. Hole Saws are interchangeable on Mandrels as indicated in the table below; each Mandrel includes a pilot drill which centers the Hole Saw and keeps the cutting concentric. Standard Hole Saws have approximately $\frac{3}{4}$ " depth-of-cut.

Hole Saw Specifications

Saw Out- side Diam.	TUNGSTEN STEEL SAW			HIGH SPEED		MANDRELS		For Con- duit Sizes	For Pipe Tap Sizes
	Fine Tooth Cat. No.	Coarse Tooth Cat. No.	Price Each Saw Only	Cat. No.	Price Each Saw Only	For $\frac{1}{2}$ " or Larger Drills	For $\frac{1}{4}$ ", $\frac{3}{8}$ " or $\frac{1}{2}$ " Drills		
$\frac{5}{8}$ "	23051	.....	\$1.65	.....	.....	*	*	.....	.....
$\frac{3}{4}$ "	16882	14906	.55	21747	\$1.28	14903	22181	$\frac{3}{8}$"	.....
$\frac{7}{8}$ "	16883	14908	.55	21748	1.28	14903	22181	$\frac{1}{2}$"	.....
$1\frac{1}{16}$ "	21382	.....	.55	21749	1.28	14903	22181	.....	$\frac{3}{4}$ "
1"	16884	14910	.55	21771	1.28	14903	22181	.....	.....
$1\frac{1}{16}$ "	21875	22953	.72	22809	1.28	14903	22181	.....	.....
$1\frac{1}{8}$ "	16885	14912	.72	21772	1.28	14903	22181	$\frac{3}{4}$"	.....
$1\frac{3}{16}$ "	17678	17679	.72	21773	1.28	14903	22181	.....	1"
$1\frac{1}{4}$ "	16886	14911	.72	21781	1.28	14904	22182	.....	.....
$1\frac{3}{8}$ "	16887	14913	.72	21782	1.28	14904	22182	1"	.....
$1\frac{1}{2}$ "	16888	14914	.72	21783	1.28	14904	22182	.....	$1\frac{1}{4}$ "
$1\frac{5}{8}$ "	16889	14915	.85	21784	1.28	14904	.....	.....	.....
$1\frac{3}{4}$ "	16890	14916	.85	21785	1.70	14904	.....	$1\frac{1}{4}$ "	$1\frac{1}{2}$ "
$1\frac{7}{8}$ "	16891	14917	.85	21786	1.70	14904	.....	.....	.....
2"	16892	14918	1.02	21787	1.70	18028	.....	$1\frac{1}{2}$"	.....
$2\frac{1}{16}$ "	16893	14919	1.02	21788	2.26	18028	.....	.....	.....
$2\frac{1}{8}$ "	16894	14920	1.02	21789	2.26	18028	.....	.....	.....
$2\frac{1}{4}$ "	16895	14922	1.20	21790	2.26	18028	.....	.....	2"
$2\frac{3}{8}$ "	16896	14921	1.20	21791	2.26	18028	.....	.....	.....
$2\frac{1}{2}$ "	16897	14923	1.20	21792	2.26	18028	.....	2"	.....
$2\frac{5}{8}$ "	16898	14924	1.28	21793	2.26	18028	.....	.....	.....
$2\frac{3}{4}$ "	16899	14925	1.28	21794	2.26	18028	.....	.....	$2\frac{1}{2}$ "
$2\frac{7}{8}$ "	16900	14927	1.28	21795	2.26	18028	.....	.....	.....
3"	16901	14926	1.40	21796	2.26	18028	.....	$2\frac{1}{2}$"	.....
$3\frac{1}{8}$ "	16902	14930	1.40	21797	2.26	18028	.....	.....	.....
$3\frac{1}{4}$ "	16903	14929	1.40	21798	2.26	18028	.....	.....	3"
$3\frac{3}{8}$"	.....	24172	1.40	.....	.....	18028	.....	.....	.....
$3\frac{1}{2}$ "	16904	14928	1.40	21799	2.26	18028	.....	3"	.....
$3\frac{5}{8}$"	.....	24173	1.70	.....	.....	18028	.....	.....	.....
$3\frac{3}{4}$"	.....	24174	1.70	.....	.....	18028	.....	.....	.....
$3\frac{7}{8}$"	.....	24175	1.70	.....	.....	18028	.....	.....	.....
4"	16905	14932	1.70	21800	3.85	18028	.....	$3\frac{1}{2}$"	.....

Mandrels for $\frac{1}{4}$ ", $\frac{5}{16}$ " and $\frac{3}{8}$ " Drills

No. 22181	Mandrel with Pilot Drill (to fit $\frac{3}{4}$ " to $1\frac{1}{16}$ " Hole Saws)	\$1.45
No. 22182	Mandrel with Pilot Drill (to fit $1\frac{1}{4}$ " to $1\frac{1}{2}$ " Hole Saws)	1.45
No. 22192	Pilot Drill Only, for above Mandrels	.30
No. 23050	$\frac{5}{16}$ " Pilot Drill for the No. 23051 Hole Saw only	.30

* The No. 23051 Hole Saw has a built-in Mandrel; no separate Mandrel supplied.

Mandrels for $\frac{1}{2}$ " and Larger Drills

No. 14903	Mandrel with Pilot Drill (to fit $\frac{3}{4}$ " to $1\frac{1}{16}$ " Hole Saws)	\$1.40
No. 14904	Mandrel with Pilot Drill (to fit $1\frac{1}{4}$ " to $1\frac{1}{2}$ " Hole Saws)	1.50
No. 18028	Mandrel with Pilot Drill (to fit 2" to 4" Hole Saws)	1.70
No. 14935	Pilot Drill only, for above Mandrels	.30



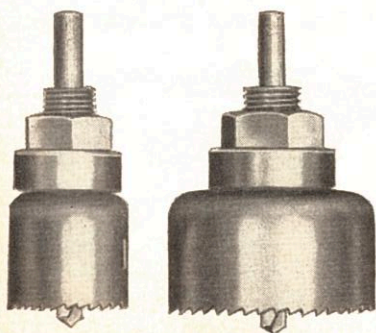
COARSE-TOOTH
FINE-TOOTH
STANDARD HOLE SAWS

Special Hole Saws

Special Tungsten Steel Hole Saws, with extra-coarse tooth arrangement, can be furnished at 50¢ more than standard prices in diameters up to $1\frac{7}{8}$ "; at \$1.00 more than standard prices in 2" to 4" diameters. Give Hole Saw diameter and specify "extra-coarse" when ordering.

Special Depth Hole Saws — for home insulation and other special uses; coarse-tooth Tungsten Steel with $1\frac{3}{4}$ " depth-of-cut; require special mandrels as listed below:

No. 24576	$2\frac{1}{4}$ " Special Depth Hole Saw	\$2.78
No. 18635	3" Special Depth Hole Saw	2.78
No. 24578	Special Mandrel with Pilot Drill to be used with above Hole Saws	1.70
No. 24577	Pilot Drill for No. 24578 Mandrel	.30



HOLE SAWS ON SMALL DRILL MANDRELS

"ELECTRIC TOOL HEADQUARTERS"

Black & Decker

Jacobs Drill Chucks and Keys

Chuck Size	Chuck and Key			Key Only*		Used on These Units
	Cat No.	Mfgs. No.	Price	Cat. No.	Price	
$\frac{1}{16}$ " Threaded	23224	1-BS	\$5.50	3030-T	\$0.40	$\frac{1}{16}$ " Hornet (type A)
$\frac{1}{4}$ " Threaded	23226	1-B	5.00	3030-T	.40	Shorty Drills (all types); $\frac{1}{16}$ " Drill (A); $\frac{1}{4}$ " Holgun (A); $\frac{1}{4}$ " Junior (B)
$\frac{1}{4}$ " Tapered	3030	1-A	5.00	3030-T	.40	$\frac{1}{4}$ " Special (all types); $\frac{1}{4}$ " Junior (A)
$\frac{1}{4}$ " Tapered	7705	7	5.00	7705-L	.40	$\frac{1}{4}$ " Heavy-Duty (A to G)
$\frac{1}{4}$ " Threaded	23227	7-B $\frac{1}{2}$ -20 Tap	5.00	7705-L	.40	$\frac{1}{4}$ " Heavy Duty (H to L)
$\frac{1}{4}$ " Threaded	23762	7-B $\frac{3}{8}$ -24 Tap	5.00	7705-L	.40	$\frac{1}{4}$ " Standard (B, C, CP, CSP, D)
$\frac{5}{16}$ " Tapered	6133	30	5.50	6133-L	.50	$\frac{1}{4}$ " Holgun (B); H.-D. Holgun
$\frac{5}{16}$ " Threaded	23228	30-B	5.50	6133-L	.50	$\frac{5}{16}$ " (all types except Utility and H.-D. L to R)
$\frac{5}{16}$ " Tapered	23519	30-1A	5.50	6133-L	.50	$\frac{5}{16}$ " Utility; $\frac{5}{16}$ " H.-D. (L to R)
$\frac{5}{16}$ " Tapered	23926	318-Tap	8.00	6133-L	.50	$\frac{5}{16}$ " (No. 8) Tapgun (Standard)
$\frac{3}{8}$ " Threaded	23229	32-B	5.75	4794-L	.50	$\frac{5}{16}$ " (No. 8) Tapgun (Special)
$\frac{3}{8}$ " Tapered	7244	32-Drill	5.75	4794-L	.50	$\frac{3}{8}$ " Standard (all types); $\frac{3}{8}$ " Utility (M to U); $\frac{3}{8}$ " H.-D. (N to T)
$\frac{3}{8}$ " Tapered	4794	32-Tapper	5.75	4794-L	.50	$\frac{3}{8}$ " Utility (K, L); $\frac{3}{8}$ "
$\frac{3}{8}$ " Tapered	20454	381-Tap	10.00	4794-L	.50	$\frac{1}{2}$ " (No. 22) & No. 2 Tappers (Std.)
$\frac{1}{2}$ " Threaded	23230	33-B	6.50	4794-L	.50	$\frac{1}{2}$ " (No. 22) & No. 2 Tappers (Spl.)
$\frac{1}{2}$ " Tapered	15839	33	6.50	4794-L	.50	$\frac{1}{2}$ " Junior (B); $\frac{1}{2}$ " Standard (B); $\frac{1}{2}$ " Utility (E, F); $\frac{1}{2}$ " End Handle
$\frac{1}{2}$ " Tapered	9480	34	7.50	1534-L	.65	$\frac{1}{2}$ " Junior (A)
$\frac{3}{4}$ " Tapered	11329	3-A	9.00	1534-L	.65	$\frac{1}{2}$ " H.-D. (A to E); $\frac{1}{2}$ " Spl. (C, D)
$\frac{3}{4}$ " Tapered	9522	36	12.00	9522-L	.95	$\frac{3}{4}$ " Standard (D); $\frac{3}{4}$ " Utility (A); $\frac{3}{4}$ " Heavy Duty (A to D)
						$\frac{3}{4}$ " Standard (E); $\frac{3}{4}$ " Utility (A); $\frac{3}{4}$ " Heavy-Duty (all)

* "T" indicates T-shaped key; "L" indicates L-shaped key.

Keyless Chucks

Can be furnished as replacements on $\frac{1}{4}$ ", $\frac{5}{16}$ " and $\frac{3}{8}$ " Drills, as follows:

Cat. No. & Type	For use on	Price*	Spacer	Price
12792 Tapered	$\frac{1}{4}$ " Special	\$5.75	.....	.....
10666 Tapered	$\frac{1}{4}$ " H.-D. (all types to G; GP to LP)	5.75	.....	.....
21758 Threaded	$\frac{1}{4}$ " Holgun and Hornet	5.75	21759	\$0.10
22029 Threaded	$\frac{1}{4}$ " H.-D. (H to L); $\frac{1}{4}$ " Standard (B, C, CP, CSP, D)	5.75	22032	.10
10800 Tapered	$\frac{5}{16}$ " H.-D. (all types to H; HP to RP)	6.75	.....	.....
22030 Threaded	$\frac{5}{16}$ " Utility (K to T); $\frac{5}{16}$ " H.-D. (L to R)	6.75	22032	.10
22031 Threaded	$\frac{3}{8}$ " Utility (M to U); $\frac{3}{8}$ " Standard	7.00	22032	.10

* These are replacement prices. See listings under individual tools for prices as original equipment

Heavy-Duty Chuck Keys

For $\frac{1}{4}$ " Drills. Provide greater leverage for tightening and opening geared chucks. Also furnished with cord and belt clip

No. 1 Heavy-Duty Key fits No. 23224; No. 23226 and No. 3030 Chucks.	
No. 7 Heavy-Duty Key fits No. 23227; No. 23762 and No. 7705 Chucks.	
No. 26368 No. 1 Heavy-Duty Chuck Key only	\$0.40
No. 26369 No. 1 Heavy-Duty Key, with Cord and Clip	.60
No. 26370 No. 7 Heavy-Duty Chuck Key only	.40
No. 26371 No. 7 Heavy-Duty Key, with Cord and Clip	.60

Chuck Key Chain

To fasten Chuck Keys to Drill or Cord. Standard on $\frac{1}{2}$ ", $\frac{5}{8}$ " and $\frac{3}{4}$ " Heavy-Duty Drills.

No. 26684 Chuck Key Chain	\$0.15
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Right Angle Drilling Attachment

To reach out-of-the-way places in work on joists, etc. Equipped with 3-Jaw Geared Chuck, $\frac{1}{2}$ " capacity.

No. 6222 Right Angle Attachment for $\frac{1}{2}$ " Special (C) and $\frac{5}{8}$ " Standard (P)	\$33.00
No. 17819 Right Angle Attachment for $\frac{1}{2}$ " Special (D); $\frac{1}{2}$ " Utility, and $\frac{1}{2}$ " Standard	33.00
No. 17820 Right Angle Attachment for $\frac{1}{2}$ " H.-D. (A to E); $\frac{5}{8}$ " Standard, and $\frac{5}{8}$ " Utility	33.00
No. 23574 Right Angle Attachment for $\frac{1}{2}$ " Junior (B)	33.00

Feed Screw Attachment

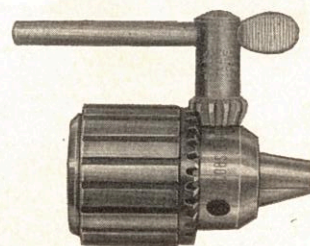
Use for constant, steady feeding pressure. Mount in place of spade handle.

No. 22555 For $\frac{1}{2}$ " Heavy-Duty (types B to E)	\$6.90
No. 19930 For $\frac{3}{8}$ ", $\frac{1}{2}$ " and $\frac{5}{8}$ " Utility; $\frac{3}{8}$ " Std. (D); $\frac{1}{2}$ " Std. (E); $\frac{5}{8}$ " Spec. (D)	6.90
No. 19960 For $\frac{3}{4}$ " H.-D. (types E to H); $\frac{3}{8}$ " H.-D. (types B to H); 1" H.-D. (types B to F); 1 $\frac{1}{4}$ " H.-D.	6.90
No. 10245 For $\frac{3}{8}$ " Heavy-Duty (type A) and previous models, $\frac{3}{4}$ ", $\frac{5}{8}$ " and 1"	6.90
No. 16962 For $\frac{3}{8}$ " Heavy-Duty (types B, C, D); $\frac{1}{2}$ " Std. (D)	6.90
No. 2140 For 1 $\frac{1}{2}$ " Drill only	15.25

Gear Grease

A gear lubricant, best suited to portable electric tool use. Recommended for most electric tools, except Saws, Sanders, Buffers, and others requiring special lubricant.

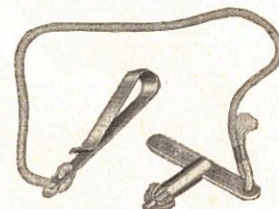
No. 23638 1 lb. Container of Standard Gear Grease	\$0.30
No. 23639 2 lb. Container of Standard Gear Grease	.50
No. 23640 7 $\frac{1}{2}$ lb. Container of Standard Gear Grease	1.70



DRILL CHUCK & KEY



KEYLESS CHUCK



KEY CORD & CLIP



RIGHT ANGLE DRILLING ATTACHMENT



FEED SCREW



"ELECTRIC TOOL HEADQUARTERS"

PORTABLE ELECTRIC SANDERS

BLACK & DECKER Sanders are most versatile surfacing tools, used with a wide variety of attachments for sanding, grinding, wire brushing, rubbing and planing operations on metal, wood, stone, tile, concrete and many other surfaces.

These Sanders are fully powered with B. & D. "universal" motors; perfectly balanced, with reversible side handles for right or left hand use; spiral bevel gears of heat-treated alloy are matched and lapped; bearings are grease-sealed.

7-Inch Standard Ball-Bearing Sander

CATALOG No. 92

THE most popular general-service unit for maintenance and production. Switch, commutator and bearings are sealed against dust and dirt. Equipped with quick-acting spindle lock for changing discs and other attachments.

Specifications

Diam. Sanding Pad .7"; Spindle .5/8" diam.; 11 thread, right hand
No-load Speed .4200 R.P.M. Overall Length (not including pad) .17 1/2"
Net Weight .12 3/4 lbs.; Shipping .16 1/2 lbs.
Standard Equipment — Spindle lock; 3-conductor cable and plug; reversible side handle; 7" moulded rubber pad; three 7" sanding discs (1 coarse, 1 medium, 1 fine); strap metal stand; clamp washer; "universal" motor.

Standard Voltage — 110; also available for 220 or 250 volts.

Catalog No. 92 (specify voltage)

Price, complete **\$55.00**

7-Inch Heavy-Duty Ball-Bearing Sander

CATALOG No. 93

EXTRA power for continuous high-speed production. All vital parts sealed against dust and dirt. Equipped with convenient spindle lock.

Specifications

Diam of Sanding Pad .7"; Spindle .5/8" diam.; 11 thread, right hand
No-load Speed .4200 R.P.M. Overall length (not inc. pad) .18"
Net Weight .14 1/4 lbs; Shipping .21 1/2 lbs.
Standard Equipment—Spindle lock; 3-conductor cable and plug; reversible side handle; 7" heavy duty moulded rubber pad; three 7" sanding discs (1 coarse, 1 medium, 1 fine); strap metal stand; clamp washer; "universal" motor.

Standard Voltage—110; also available for 220 or 250 volts.

Catalog No. 93 (specify voltage)

Price, complete **\$67.00**

9-Inch Heavy-Duty Ball-Bearing Sander

CATALOG No. 433

POWERED for heavy-duty production, faster schedules, more output per tool. Switch, commutator and bearings sealed against dust and dirt. Equipped with spindle-lock. Recommended for wire cup brushes, saucer grinding wheels and planer heads.

Specifications

Diam. of Sanding Pad, 9"; Spindle, 5/8" diam.; 11 thread, right hand.
No-load Spindle Speed .4000 R.P.M.*
Weight: Net .18 3/4 lbs; Shipping .25 lbs.
Overall Length (not including pad) .19 1/2"

Standard Equipment—Spindle lock; 9" moulded rubber pad; three 9 3/8" abrasive discs (1 coarse, 1 medium, 1 fine); clamp washer; reversible side handle; strap metal stand; suspension eye-bolt; 3-conductor cable and plug (3rd wire for grounding); "universal" motor.

Standard Voltage—110; also available for 220 or 250 volts.

*Optional speed of 5000 R.P.M. available at no extra cost.

Catalog No. 433 (specify voltage)

Price, complete **\$80.00**

Attachments and Supplies, Pages 14 and 15.

"ELECTRIC TOOL HEADQUARTERS"

Black & Decker

Automatic Electric Buffer

CATALOG No. 97

THE automatic-feed principle greatly speeds up the Power-Glaze operation by applying the liquid directly to the car surface. A metal reservoir at the handle end holds a supply of Power-Glaze, and is equipped with a plunger pump (operated with the thumb) which feeds the liquid by means of a tube, through the hollow spindle of the Buffer, directly to the car surface.

Specifications

Pad Diameter 7"
 Spindle Diameter..... $\frac{5}{8}$ "-11 thread
 Speed: No-load 1400 R.P.M.
 Weight: Net $9\frac{1}{2}$ lbs.
 Shipping $18\frac{1}{2}$ lbs.
 Overall Length (not including pad).... $16\frac{1}{4}$ "
 Standard Equipment — Automatic Electric-Buffer complete with reservoir, plunger pump and tube; 3-conductor cable and plug; rocker-type switch; 7" moulded rubber pad; 7" sponge rubber cushion pad; lambswool buffing bonnet; reversible side handle; "universal" motor.
 Standard Voltage — 110; also available for 220 or 250 volts.
 Catalog No. 97 (specify voltage)
 Price, complete **\$65.00**

Standard Electric Buffer

CATALOG No. 96

THIS unit contains all the features of the Automatic Electric Buffer except that it does not have the automatic feed and reservoir for liquid. The power and torque factors make the Standard Electric Buffer an ideal unit for rubbing-down operations on new paint jobs, and for cleaning all types of metal surfaces.

Specifications

Pad Diameter 7"
 Spindle Diameter..... $\frac{5}{8}$ "-11 thread
 Speed: No-load 1400 R.P.M.
 Weight: Net $8\frac{1}{4}$ lbs.
 Shipping $17\frac{1}{4}$ lbs.
 Overall Length (not including pad).... $14\frac{1}{4}$ "
 Standard Equipment — Standard Electric-Buffer complete; 3-conductor cable and plug; rocker-type switch; 7" moulded rubber pad; 7" sponge rubber cushion pad; lambswool buffing bonnet; reversible side handle; strap metal stand; "universal" motor.
 Standard Voltage — 110; also available for 220 or 250 volts.
 Catalog No. 96 (specify voltage)
 Price, complete **\$54.00**

Lambswool Buffing Pad and Bonnet

For cleaning and polishing lacquered finishes and for obtaining final high lustre after spraying. Attached direct to flexible pad of Buffer.

No. 31553	Lambswool Buffing Pad for 7" Buffer or 7" Sander, individually boxed, each.....	\$1.38
No. 13086	Lambswool Buffing Pad for 7" Buffer or 7" Sander, packed 6 to a carton, each.....	1.22
No. 13087	Lambswool Buffing Bonnet with Hood and Drawstring....	1.95
No. 22176	Lambswool Buffing Bonnet (for use with Sponge Rubber Cushion).....	2.45
No. 22174	7" Sponge-rubber Cushion.....	.90
No. 22191	Long Clamp Washer only, for Sponge-rubber Cushion.....	.30

Power-Glaze

A special car-body cleaning and buffing compound, chemically and mechanically correct for use with Buffers and Sander-Buffer. Cleans, burnishes and seals the surface in one quick, easy operation, leaving a hard, glazed surface with pores sealed against oxidation and corrosion.

Cat. No. 31461 Power-Glaze, 1-gallon jar..... **\$2.85**

Power-Wax

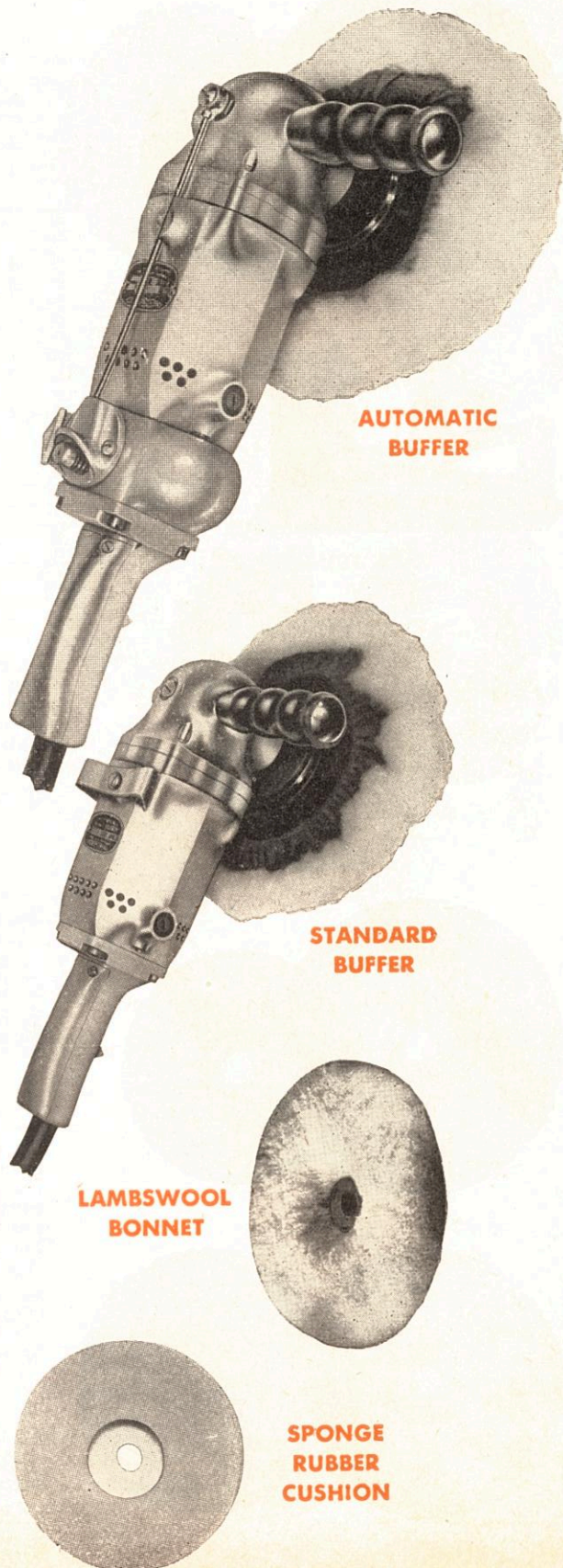
For those desiring the additional high gloss of a wax finish, Black & Decker Power Wax is available for use with Buffers.

Cat. No. 31463 Power Wax, Quart Can..... **\$1.50**

Power Rubbing Compound

Applied with Buffer equipped with Pile Fabric Buff, will quickly remove "orange peel" and spray pits from newly lacquered surfaces, giving a smoother, more uniform surface.

Cat. No. 31459 Power Rubbing Compound, 1-gallon jar..... **\$2.25**



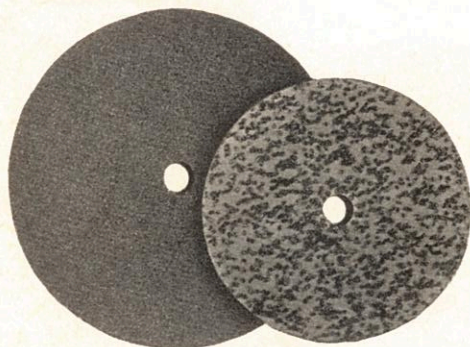


"ELECTRIC TOOL HEADQUARTERS"

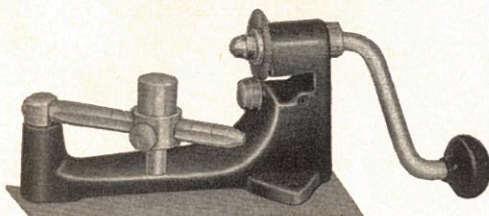
Sander and Buffer Attachments and Supplies

Sanding Discs

SANDING and abrasive discs can be furnished in a variety of grades and grains. Discs designated as "Open Grain" are especially suited for wood sanding (Nos. 16, 24 and 36 for removing paint and varnish); "Closed Grain" discs are for metal work.



SANDING DISCS



DISC TRIMMER

Grade	7-Inch Sanding Discs			9 1/8-Inch Sanding Discs		
	Cat. No.	Price Each	Price Per 100	Cat. No.	Price Each	Price Per 100
Closed Grain						
*16	17815	\$0.32	\$31.90	26458	\$0.43	\$42.58
24	9990	.25	24.82	10719	.34	33.07
30	18488	.25	24.56	18492	.33	32.77
36	9991	.25	24.30	10720	.32	31.95
50	9992	.23	22.70	12153	.31	30.24
60	18489	.22	21.56	18493	.29	28.79
80	10485	.20	19.85	10721	.28	27.10
100	12145	.20	19.85	12149	.28	27.10
120	12146	.20	19.85	12150	.28	27.10
150	12147	.20	19.85	12151	.28	27.10
180	12148	.20	19.85	12152	.28	27.10
Open Grain						
*16	15134	.32	31.90	15137	.43	42.58
24	15135	.25	24.82	15138	.34	33.07
36	15136	.25	24.30	15139	.32	31.95
50	12011	.23	22.70	12131	.31	30.24
60	18491	.22	21.56	18495	.29	28.79
80	12012	.20	19.85	12132	.28	27.10
120	12013	.20	19.85	12133	.28	27.10

* No. 16 Discs are packed 10 to a box; all other discs packed 25 to a box.

Abrasive Disc Trimmer

FOR complete use of abrasive discs, this Disc Trimmer cuts them down to smaller sizes as the outer edges are worn out. Adjustable center-hole pilot on calibrated swinging arm; cutting wheel mounted on one-piece spindle and crank; base casting is screwed to bench. Takes discs of 9 1/8" maximum diameter and either 7/8" or 1/2" center-hole; trims down to 3" diameter.

No. 21808 Abrasive Disc Trimmer, complete. \$6.90
No. 21753 Replacement Cutter.40

Replacement Sander Pads and Parts

All pads and replacement assemblies are interchangeable on all Sanders and Buffers as the spindle diameter and thread is the same for all units of this group; 5/8"-11 thread.

No. 17687 7" Moulded Rubber Pad. \$3.00
No. 18329 7" Heavy Duty Moulded Rubber Pad. 3.50
No. 18330 9" Moulded Rubber Pad. 5.50
No. 14237 3" Flexible Pad, complete. 3.50
No. 14551 Replacement Pad for 3" Flexible Pad. 1.15
No. 22589 5" Moulded Rubber Pad. 2.50
No. 10279 Clamp Washer.25

"Kooflex" Backing Pads

LIGHT-WEIGHT, fabric-base, plastic-bonded discs provide greater flexibility, cooler operation and longer life on sanding applications. Used with No. 22589 Moulded Rubber Pad. For maximum flexibility, use one "Kooflex" pad with corresponding size abrasive disc. For "feathering" finish, use No. 31000 "Kooflex" pad with 9" abrasive. For more rigid backing use both sizes of "Kooflex" pads with 9" abrasive. Use with Special Clamp Washers listed below.

No. 31000 6 3/4" "Kooflex" Backing Pad. \$1.50
No. 31001 8 3/4" "Kooflex" Backing Pad. 2.00
No. 31003 Special Clamp Washer, to be used with either one of the "Kooflex" Pads.30
No. 31004 Extra-long Clamp Washer, to be used when both "Kooflex" Pads are used.30

Rubbing Pads

For rubbing down orange peel in lacquer finishes, etc. Attaches direct to flexible pad of Buffer or Sander.

No. 20619 7" Pile Fabric Rubbing Pad. 1.40
No. 21207 9 1/4" Pile Fabric Rubbing Pad. 2.30
No. 10661 Felt Rubbing Pad for 7" Buffer or 7" Sander. 1.45
No. 10709 Felt Rubbing Pad for 9" Sander. 1.95

SANDING DISCS

DISC TRIMMER

RUBBER PAD

KOOFLEX PADS

**FELT
PILE FABRIC
RUBBING PADS**

"ELECTRIC TOOL HEADQUARTERS"

Black & Decker

Sander and Buffer Attachments and Supplies

TAKE full advantage of the many types of surfacing operations that can be done with Black & Decker Sanders. The attachments below will increase the usefulness of these versatile time-savers. Each attachment threads directly onto the ground-thread spindle of the Sander, replacing the flexible backing pad.

Wire Cup Brushes

Made in our own plant, for use on Standard and Heavy-Duty Sanders. Well built of finest quality wire to give long service on the toughest kinds of cleaning operations. Use these Wire Cup Brushes for removing rust and scale from all metal surfaces; for cleaning tanks and boat hulls; for taking off old paint; for cleaning castings and structural metal. The hub of the Wire Cup Brush is fitted with a $\frac{5}{8}$ "-11 thread bushing, which threads on the Sander spindle.

- No. 18056 4" Wire Cup Brush
(.020"-crimped) for 7" Standard Sander....\$2.25
- No. 24353 5" Wire Cup Brush
(.020"-smooth) for 7" Heavy-Duty Sander... 2.75
- No. 12398 6" Wire Cup Brush
(.022"-crimped) for 9" Heavy-Duty Sander.. 3.25

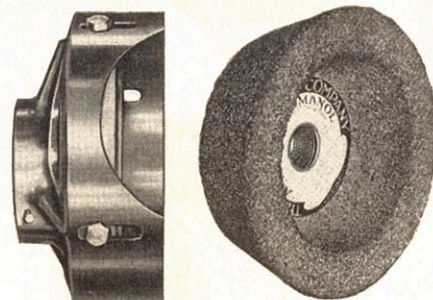


**WIRE
CUP
BRUSHES**

Saucer Grinding Wheel

For some metal grinding applications, the Sander equipped with a Saucer Grinding Wheel does smoother and faster work than a Portable Grinder. Saucer Wheels have $\frac{5}{8}$ "-11 thread bushing to fit spindle direct.

- No. 24050 4" Saucer Grinding Wheel (for 7" Standard Sander)... \$5.50
- No. 23444 5" Saucer Grinding Wheel (for 7" Heavy-Duty Sander)... 6.90
- No. 18039 6" Saucer Grinding Wheel (for 9" Heavy-Duty Sander)... 8.35
- No. 17329 Skirt Wheel Guard (for Heavy-Duty Sander)..... 5.00



**SKIRT
GUARD**

**SAUCER
WHEEL**

Cup Grinding Wheel

For smoothing welds and other metal surfaces. Use No. 10711 Spindle Extension to attach to Sander.

- No. 10663 4" Cup Grinding Wheel.....\$1.95
- No. 10711 Spindle Extension 2.00

Rotary Planer Heads

Perform many wood surfacing and shaping operations formerly done with jack-plane and adz. Two types of planer head are supplied; one with rounded surfacing for deep gouging, the other with flat face for surfacing and semi-finishing. These heads are interchangeable on the spindle of the 7" Heavy-Duty and 9" Heavy-Duty Sanders.

- No. 14743 Set of two 5" Planer Heads, one Gouging and one Surfacing, complete with blades, packed in neat oak box...\$23.00
- No. 14734 5" Gouging Planer Head, complete with blades..... 11.00
- No. 14735 5" Surfacing Planer Head, complete with blades..... 11.00
- No. 14733 Replacement Blade (same for either head), Set of 3.... 1.90



CUP WHEEL

**SPINDLE
EXTENSION**

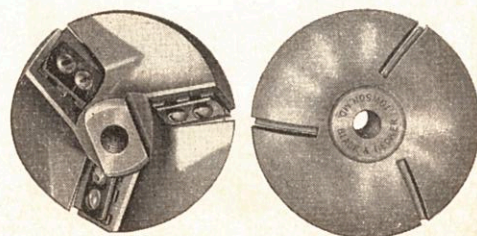
Miscellaneous Attachments

- Suspension Eye-Bolt for all Sanders (except "Junior") which are drilled and tapped. No. 2473, price, each.....\$.25
- Strap-metal Stand, to support Sander when not in use. Standard equipment on all Sanders (except "Junior") and Buffers (except Automatic). No. 22411, price.....\$.30
- Sander Spindle Adapter — A bushing, threaded inside and outside to adapt the above-listed Sander pads and attachments to Sanders with $\frac{3}{8}$ " diameter threaded spindles. No.30571, price.....\$1.35

Special Lubricant for Sanders

The spiral bevel gears in all Black & Decker Sanders and Buffers require a lubricant of different viscosity than that recommended for Drills and other Portable Tools. This special lubricant is available in convenient containers.

- No. 24380 1-lb. container Special Lubricant.....\$.55
- No. 24381 2-lb. container Special Lubricant..... 1.00
- No. 24382 7- $\frac{1}{2}$ lb. container Special Lubricant..... 3.50



ROTARY PLANER HEADS



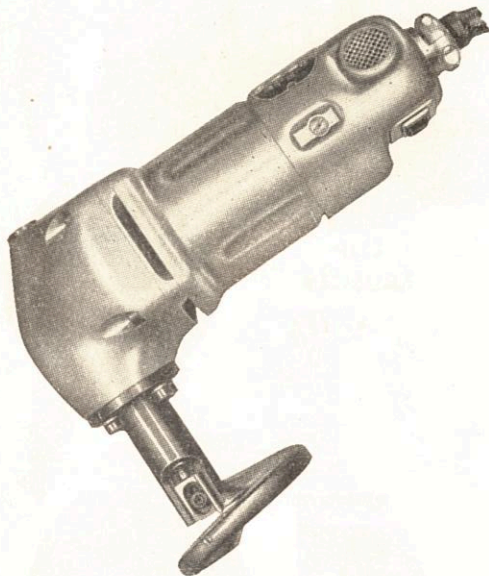
"ELECTRIC TOOL HEADQUARTERS"

Electric PORTO-SHEARS*

PORTO-SHEARS will cut all types of sheet metal quickly, easily and accurately. A simple adjustment of the blade clearance adapts the Porto-Shear to any thickness up to its rated capacity in sheet steel and galvanized iron; about one gage thinner in Monel and stainless; 50% above rating in sheet copper, aluminum, lead and other non-ferrous metals. Porto-Shears are also used successfully for cutting thin sections of laminated wood and sheet plastics, with slight changes in blade contours.

A rapid reciprocating action of the vertical blade against the stationary horizontal blade makes a clean, smooth cut without burrs or ragged edges on either piece. Porto-Shears easily follow a straight line or irregular pattern laid out on the sheet, *because the cutting blade is always visible*. The patented shoe construction permits cutting to a small radius and the shoe contour indicates the correct cutting angle. The Porto-Shear feeds easily and only a light forward pressure is required to cut at a surprisingly rapid speed.

Both Porto-Shears are full ball-bearing equipped (except the eccentric, which operates in a phosphor-bronze block) and powered by "universal" motors which operate on either alternating or direct current. Accessible set-screws make blade adjustments simple and blades can be reground without special fixtures. Overall simplicity and sturdy construction reduce service replacements and increase the useful life of Porto-Shears.



18-GAGE PORTO-SHEAR

18-Gage PORTO-SHEAR

CATALOG No. 258

Motor and commutator housings of pressed steel; reduce the diameter, overall length and weight of this unit, with improved operating balance and ease of handling. Motor housing is small enough to serve as handle, eliminating the need for an extra handle.

Specifications

Shearing Capacity in Steel (U. S. Std.).....18 gage.
Cutting Speed (Strokes per minute): No-load.....2,500.
Minimum Cutting Radius..... $\frac{1}{2}$ " Overall Length.....9 $\frac{1}{8}$ ".
Weight: Net8 $\frac{1}{2}$ lbs.; Shipping8 lbs.
Standard Equipment — 3-wire cable and plug; slide switch in commutator end-cap; one each No. 20724 and No. 19916 blades with locking and set screws; one set screw wrench; "universal" motor.
Standard Voltage — 110; also available for 220 or 250 volts.
Catalog No. 258 (Specify voltage)

Price, complete\$68.00

16-Gage PORTO-SHEAR

CATALOG No. 259

Balance and control of this larger, more powerful Shear are improved with operating handle that can be held in any position, over-top to rear-end. Handle contains instant-release trigger switch with locking pin for continuous use.

Specifications

Shearing Capacity in Steel (U. S. Std.).....16 gage.
Cutting Speed (Strokes per minute): No-load.....2,500.
Minimum Cutting Radius..... $\frac{3}{4}$ " Overall Length.....12 $\frac{1}{8}$ ".
Weight: Net8 $\frac{1}{2}$ lbs.; Shipping10 $\frac{1}{2}$ lbs.
Standard Equipment — 3-wire cable and plug; trigger switch with locking pin; one each No. 20724 and No. 19916 blades with locking and set screws; one set screw wrench; "universal" motor.
Standard Voltage — 110; also available for 220 or 250 volts.

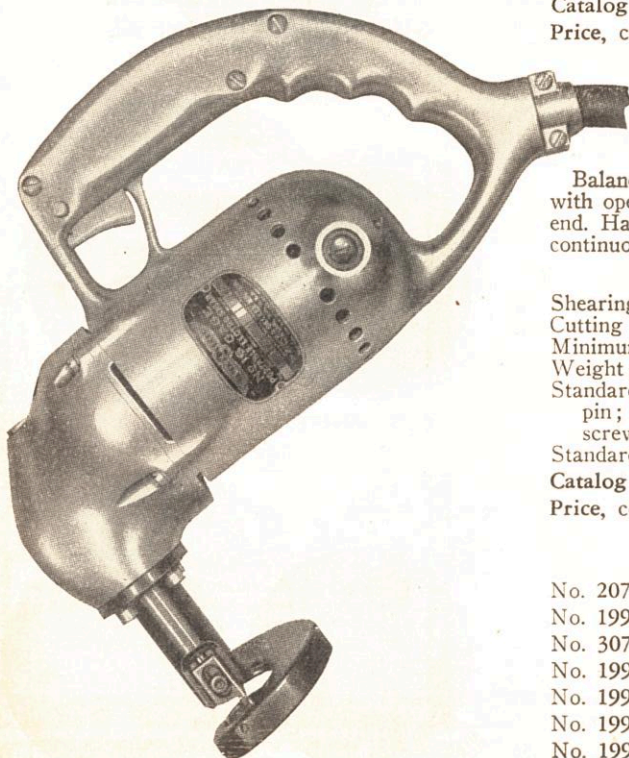
Catalog No. 259 (Specify voltage)

Price, complete\$78.00

Replacement Parts (for both Shears)

No. 20724	Vertical Shear Blade.....	\$1.00
No. 19916	Horizontal Stationary Blade.....	1.00
No. 30746	Socket Head Locking Screw for Vertical Blade.....	.10
No. 19937	Socket Head Locking Screw for Horizontal Blade.....	.10
No. 19912	Nut for Horizontal Blade.....	.10
No. 19907	Adjusting Stop-pin Screw for Vertical Blade.....	.25
No. 19906	Adjusting Set Screw for Horizontal Blade.....	.03

* Trade Mark Reg. U. S. Pat. Off.



16-GAGE PORTO-SHEAR

"ELECTRIC TOOL HEADQUARTERS"

Black & Decker

No. 95 VACKAR*

Automotive and Industrial Electric Vacuum Cleaner

A SUPER-POWERED, compact, self-contained vacuum cleaner for both automotive and industrial use. With both inlet and outlet hose connections, it can be used as a vacuum cleaner or a blower. Ideal for cleaning floors, walls, ceilings and other parts of the plant. Recovers rivets, metal and similar material. Has hurricane blower action for cleaning motors, transformers, etc.

Baffle plates and filters adapt the No. 95 Vackar to wet cleaning and to removing excess moisture after scrubbing upholstery and carpets. The motor and mechanism are completely protected from moisture and unharmed under such use. Makes an ideal all-purpose cleaner for heavy-duty use in garages, super-service stations, wash-racks, etc.

No. 95 Vackar "tows by the hose" and rolls easily over rough floors on ball-bearing swivel casters. Its 15-foot flexible hose easily reaches out-of-the-way corners. The dirt compartment, with a capacity of 3.7 gallons, is quickly cleaned. Moves 60 cubic feet of air per minute at a speed of 2 miles per minute.

Specifications

Dimensions: Height...28"; Diam. Top...16 1/4"
Diam. Body...13 1/4"; Diam. Base...18 1/2".

Sealed vacuum pull.....65"

Vacuum with 1" orifice.....18"

Mechanism: "Universal" motor drives 3-stage centrifugal fan moving 60 cu. ft. of air per minute. Baffle plates prevent air slippage.

Weight: Net 52 lbs.; Shipping 67 lbs.

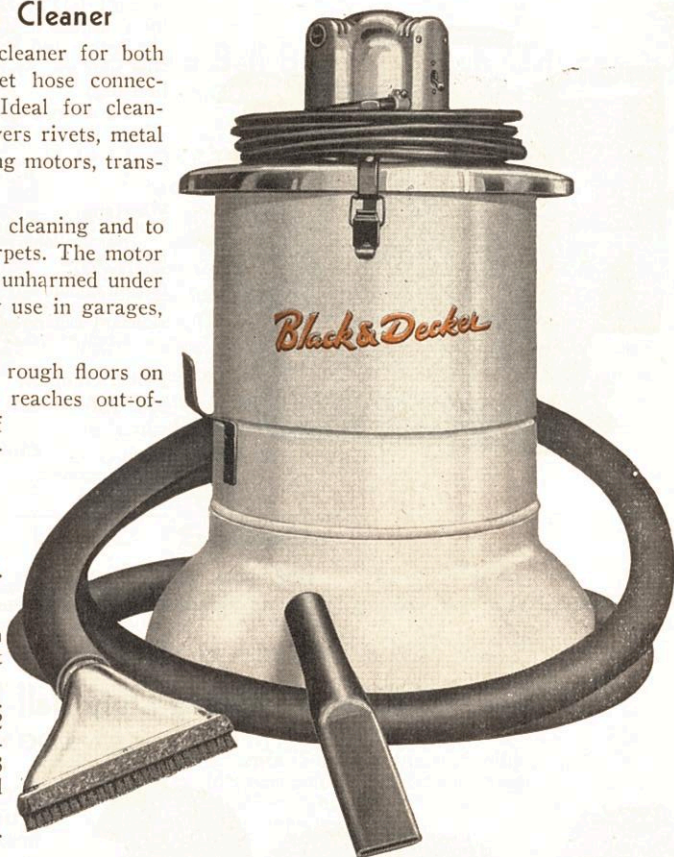
Standard Equipment — 15 feet of 1 1/2" flexible hose with 2 swivel connections; 3-wire cable and plug; wide upholstery nozzle; detachable brush; flat-tube nozzle; 3 ball-bearing swivel casters; brackets for coiling hose and cable; "universal" motor.

Standard Voltage — 110; also available for 220 or 250 volts.

Catalog No. 95 (specify voltage)

Price, complete **\$145.00**

* Trade-Mark Reg. U. S. Pat. Off.



No. 95 "VACKAR"

No. 95 Vackar Replacement Attachments

No. 23902	15-foot Flexible Hose	\$12.00
No. 23891	Wide Upholstery Nozzle	2.55
No. 23903	Flat Tube Nozzle .....	.50
No. 18186	6 1/2" Upholstery Brush .....	.95
No. 23676	Set of 3 Ball Bearing Casters	3.45

Additional Industrial Attachments

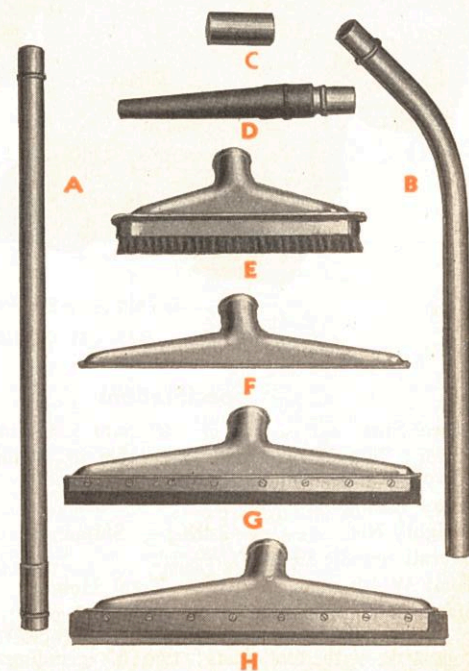
TO EXPAND the use of the Vackar to industrial cleaning, a special group of attachments is listed below. The various nozzles fit the long rigid operator's handle, which is in two parts (Items A and B). This handle requires the Coupling Adaptor to fit the hose of the No. 95 Vackar. The Blower Tool also uses the Coupling Adaptor to fit the No. 95 Vackar hose.

No. 24834	Operator's Handle—Straight Section* (A)	\$ 4.60
No. 24835	Operator's Handle—Curved Section* (B)	4.60
No. 26081	Soft Rubber Blower Tool* (D)	2.10
No. 24836	Coupling Adaptor for No. 95 Vackar (C)	1.30
No. 25913	Extension Coupling, to join 2 Hose Sections	1.15
No. 24833	14" Floor Nozzle** (F)	6.30
No. 26084	14" Felt Floor Tool** (G)	11.50
No. 26086	Replacement Felt Strip for No. 26084, Set of 2	1.90
No. 26083	10" Carpet and Floor Brush Tool** (E)	12.95
No. 26600	Replacement Nozzle for No. 26083	8.00
No. 26518	Replacement Brush for No. 26083	4.95
No. 26085	14" Squeegee Nozzle** (H)	15.25
No. 26087	Replacement Wide Rubber Strip for No. 26085, Set of 2†	2.55
No. 26088	Replacement Narrow Rubber Strip for No. 26085, Set of 2†	

† Price includes Set of No. 26087 and Set of No. 26088.

* Use with Adaptor No. 24836 for No. 95 Vackar.

** Fit on end of Operator's Handle; Nos. 24834-24835.



"VACKAR" TOOLS



"ELECTRIC TOOL HEADQUARTERS"

6" Junior Bench Grinder

A STURDY, well-balanced Bench Grinder for practical shop use. Powered by a standard Black & Decker constant speed $\frac{1}{4}$ -H.P. motor.

Rotor and wheel spindle mounted on full-size bearings; special protective sleeves covering these bearings. Guards are cast integral with motor housings.

Tool rests are locked in base grooves with wing nuts, and adjusted for wheel wear.

Specifications

Wheel size.....6" diam. x $\frac{3}{4}$ " face x $\frac{1}{2}$ " hole.
 Motor—Not Universal. Supplied for all standard A.C. single-phase voltages and cycles only.
 Not available for Direct Current.
 Motor rating..... $\frac{1}{4}$ H.P. (except 25 cycle, $\frac{1}{2}$ H.P.)
 Weight: Net.....31½ lbs. Shipping.....34 lbs.
 Overall spindle length.....12½" Overall height.....10"
 Height to center-line of spindle.....5½"
 Standard Equipment: 3-conductor cable and plug; toggle switch in base; carrying handle, 4 rubber feet, 2 wheel guards, 2 tool rests, 1 medium grinding wheel, 1 wire wheel brush.

Price, complete (specify voltage, phase and cycle).....\$27.00

No. 18614 Metal End Cover for 6" Junior Wheel Guard.....\$ 1.00

CURRENT SPECIFICATIONS AND CATALOG NUMBERS:

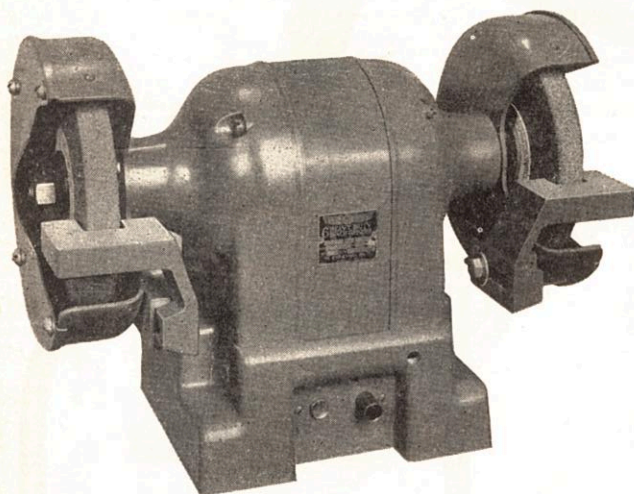
Phase	Cycles	R.P.M.	Standard Unit Catalog Number	Available Voltages
1	60	3600	66	110, 220, 250
	50	3000	66	110, 220, 250
	40	2400	65	110, 220
	25	1500	64	110, 220

Give complete current characteristics of your power supply when ordering.

**6-INCH JUNIOR
BENCH GRINDER**

NEW 6" Heavy Duty Ball-Bearing Bench Grinder

CATALOG No. 67



**6-INCH HEAVY-DUTY
BENCH GRINDER**

Specifications

Wheel Size.....6" diam. x $\frac{3}{4}$ " face x $\frac{1}{2}$ " hole
 Motor: Not "Universal." See table of available currents, voltages and spindle speeds.

Motor Rating..... $\frac{1}{2}$ H.P.

Weight: Net.....42 lbs.; Shipping.....45 lbs.

Overall Spindle Length.....15"

Total Width.....16" Total Height.....10 $\frac{7}{8}$ "

Standard Equipment: 3-wire cable and plug; 2-pole push-button switch mounted in base; two enclosed steel wheel guards with tool rests; two 6" grinding wheels, one medium, one fine.

Cat. No. 67 (for listed A.C. currents only).....\$45.00



CURRENT SPECIFICATIONS AND CATALOG NUMBERS:

Phase	Cycles	R.P.M.	Standard Grinder Cat. No.	Available Voltages
1	60	3600	67	110, 220
	50	3000	67	110, 220

Give complete current characteristics of your power supply when ordering.

Extra Equipment

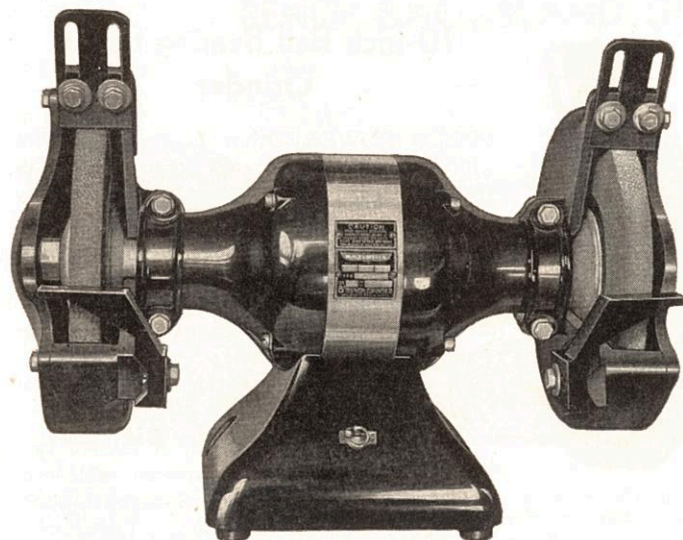
No. 30700 Pedestal, with water pot....\$22.00

No. 6405 $\frac{1}{2}$ " Threaded Chuck (R.H.) 7.50

See Pages 22, 23 and 26 for Attachments and Supplies.

"ELECTRIC TOOL HEADQUARTERS"

Black & Decker



8-INCH BENCH GRINDER

8-Inch Ball Bearing Bench Grinder

Standard Model

FULL ONE-HALF horsepower motor, of the constant speed type. Long spindle, with grease-sealed ball bearings near wheels for smooth operation. Tapered spindle housings give ample room around wheels for large and odd-shaped work. Completely enclosed wheel guards, with adjustable tool-rests and spark-shields, meet all safety regulations. Guards are adjustable radially; tool-rests and spark-shields adjustable for wheel wear. Guards are drilled and tapped for eye shields which are available at small extra cost. Equipped with two 8" wheels: one medium, for fast, rough grinding; one fine, for finish grinding and tool sharpening.

Specifications

Wheel size: 8" diameter x $\frac{7}{8}$ " face x $\frac{5}{8}$ " hole.

Motor: Not "universal", not available for direct current. See table of available currents below.

Motor Rating: $\frac{1}{2}$ H. P. (except 25 cycle, which is $\frac{3}{8}$ H. P.).

Weight: Net72 lbs.;

Shipping82 lbs.

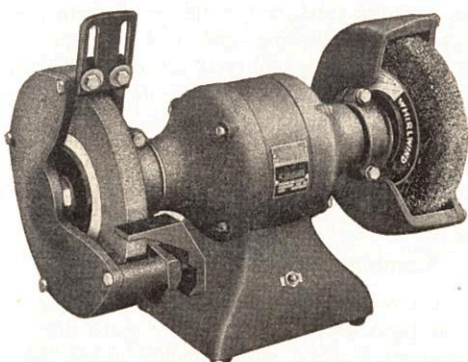
Overall Spindle Length.....17 $\frac{3}{4}$ ".

Height: Total12";

to C/L Spindle7 $\frac{1}{4}$ ".

Standard Equipment — On 1-phase units, 3-wire cable and plug; on 2-phase and 3-phase units, lead wires for permanent connection; toggle switch in base; rubber feet; two enclosed wheel guards with tool rests and spark shields; two 8" grinding wheels, one medium, one fine.

Price, (see table below for Cat. Nos. and available currents) **\$80.00**



COMBINATION BENCH GRINDER

Combination Model

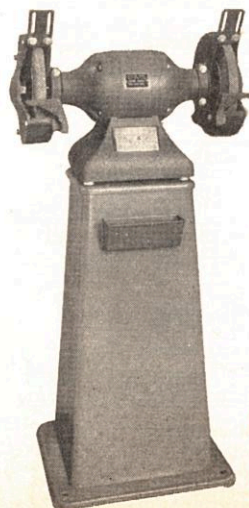
FOR SHOPS that wish to do wire-brushing and grinding on the same machine. Equipped with one extra-wide enclosed guard (without tool rest or spark shield) and one No. 21405 8" Wire Wheel Brush; one standard guard (with tool rest and spark shield) and one 8" medium grinding wheel. Other specifications same as Standard unit.

Price, (see table below for Cat. Nos. and available currents) **\$85.00**

CURRENT SPECIFICATIONS AND CATALOG NUMBERS:

Phase	Cycles	R.P.M.	Standard Grinder Cat. No.	Combination Grinder Cat. No.	Available Voltages
1	60	3600	74	74-C	110, 220, 250
	50	3000	74	74-C	110, 220, 250
	40	2400	71	71-C	110, 220, 250
	25	1500	69	69-C	110, 220, 250
2	60	3600	75	75-C	110, 220, 250, 440, 550
	50	3000	75	75-C	110, 220, 250, 440, 550
	40	2400	72	72-C	110, 220, 250, 440, 550
3*	60	3600	76	76-C	110/220, 220/440, 250/500, 550
	50	3000	76	76-C	110/220, 220/440, 250/500, 550
	40	2400	73	73-C	110/220, 220/440, 275/550
	25	1500	70	70-C	110/220, 220/440, 275/550

* Three-phase voltages shown in combination are reconnectable for either voltage. Give complete current characteristics of your power supply when ordering.



GRINDER ON PEDESTAL

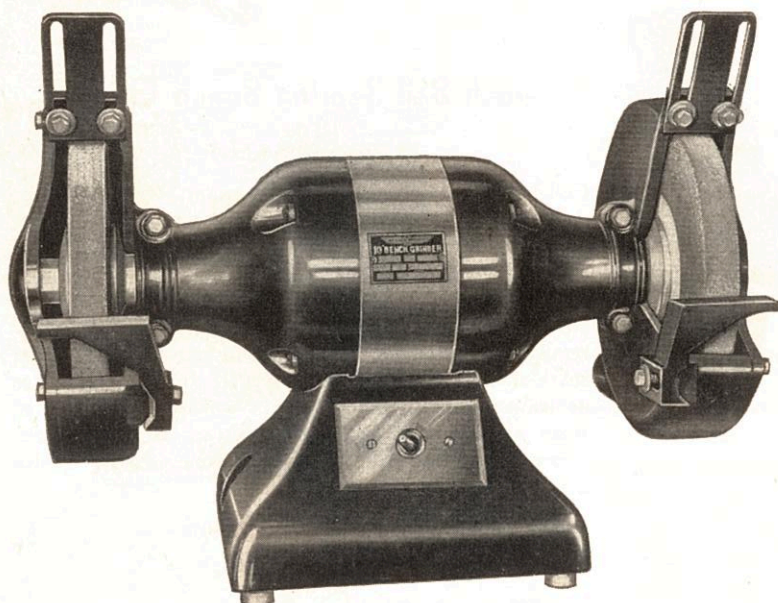
Extra Equipment

No. 30700 Pedestal with water pot. \$22.00
No. 18465 Wide Wheel Guard (R. H.) for 8" Wire Wheel Brush. 5.00

See Pages 21, 22, 23 and 26 for other Attachments and Supplies.



"ELECTRIC TOOL HEADQUARTERS"



10-INCH BENCH GRINDER

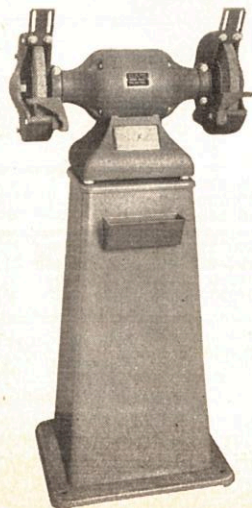
Specifications

Wheel size: 10" diam. x 1" face x $\frac{3}{4}$ " hole.
 Motor: Not "universal". See table below for all available voltages, phases and cycles.
 Motor Rating: 1 H.P. (except 25 cy. which is $\frac{3}{4}$ H.P.)
 Weight: Net 137 lbs.
 Shipping 153 lbs.
 Overall Spindle Length..... 22 $\frac{3}{4}$ "
 Height: Total 15 $\frac{1}{4}$ "
 To C/L Spindle..... 9 $\frac{1}{2}$ "

Standard Equipment—Lead wires for permanent connection; toggle switch in base; two wheel guards; two grinding wheels, one coarse, one medium.

Extra Equipment

No. 30835 Pedestal with water pot.....\$28.00
 No. 18467 Wide Wheel Guard (R.H.)
 for 10" Wire Wheel Brush..... 7.00



**GRINDER
ON
PEDESTAL**

10-Inch Ball Bearing Bench Grinder

FULLY POWERED for heavy-duty service with a one-horsepower constant-speed Black & Decker motor. Wheel guards meet all safety regulations, being completely enclosed, with spark shields and tool rests adjustable for wheel wear. Guards are also equipped with outlets, which can be connected to exhaust or dust-collecting system. Guards are adjustable radially on the spindle. Tapered spindle housings and extended spindles provide ample room for handling large work.

Wire leads are brought out at rear of base for permanent conduit or armored cable connection. The base is drilled and tapped for conduit and a connector is furnished for armored cable. Grounding is accomplished through conduit or cable cover.

Standard Model

EQUIPPED WITH two 10" grinding wheels; a coarse wheel for rough grinding and fast removal of metal; a medium wheel for finish-grinding and tool sharpening. Standard guards with adjustable tool rests and spark shields. Guards are drilled and tapped for eye shields which can be furnished at slight extra cost.

Price (see table below for Catalog Numbers and available currents) **\$115.00**

Combination Model

EQUIPPED WITH one No. 21407 10" Wire Wheel Brush and extra-wide wheel guard without tool rest or spark shield; one 10" medium grinding wheel with standard guard, tool rest and spark shield. Other specifications same as Standard Unit. For finishing operations that require both grinding and brushing.

Price (see table below for Catalog Numbers and available currents) **\$121.00**

CURRENT SPECIFICATIONS AND CATALOG NUMBERS:

Phase	Cycle	R.P.M.	Standard Grinder Cat. No.	Combination Grinder Cat. No.	Available Voltages
1	60	1800	83	83-C	110, 220, 250
	50	1500	83	83-C	110, 220, 250
	40	2400	80	80-C	110, 220, 250
	25	1500	78	78-C	110, 220, 250
2	60	1800	84	84-C	110, 220, 250, 440, 550
	50	1500	84	84-C	110, 220, 250, 440, 550
	40	2400	81	81-C	110, 220, 250, 440, 550
3*	60	1800	85	85-C	110/220, 220/440, 250, 550
	50	1500	85	85-C	110/220, 220/440, 250, 550
	40	2400	82	82-C	110/220, 220/440, 250, 550
	25	1500	79	79-C	110/220, 220/440, 250, 550
Direct Current		2000	77	77-C	115, 230, 250

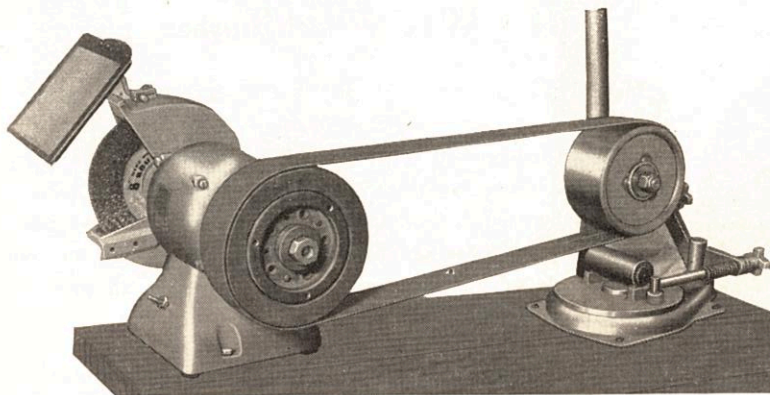
* Three phase voltages shown in combination are reconnectable for either voltage.
 Give complete current characteristics of your power supply when ordering.

See Pages 22, 23 and 26 for other Attachments and Supplies.

"ELECTRIC TOOL HEADQUARTERS"

Black & Decker

BENCH BACK-STAND GRINDER



THE ABRASIVE belt method of grinding can be done on either the 8" or 10" Black & Decker Bench Grinders by using a Back-Stand Idler, a Compress Contact Wheel of suitable size and abrasive belts of correct grit for the job to be done.

This method does faster work at lower cost than wheels and presents more abrasive material in the length and width of the belt. The Compress Contact Wheel offers a resilient cushion surface and retains full diameter, thus maintaining maximum grinding speed at all times. The belt is very quickly changed or replaced.

Back-Stand Idler

THIS IDLER unit can be used on either the right or left side of the Bench Grinder. The Idler consists of an idler pulley, a lever which quickly releases the belt tension, a spring adjustment to increase or decrease belt tension and a swivel adjustment on the base to align the belt with the Grinder spindle.

Specifications

Pulley diameter.....6";	Face.....3 1/4".
Size of base.....8" x 11";	Height to C/L spindle.....7 3/8".
Weight: Net.....20 1/2 lbs.;	Shipping.....23 lbs.

Catalog No. 30328.....**\$34.50**

Compress Contact Wheels—Act as drive pulley and work wheel; segment construction gives desired cushion for maximum surface contact on flat or shaped pieces.

No. 30897 6" x 2 1/2" x 5/8" Medium Contact Wheel, for use on 8" Bench Grinder.....\$15.00

No. 30898 8" x 2 1/2" x 3/4" Medium Contact Wheel, for use on 10" Bench Grinder.....19.40

Abrasive Belts—A 60" x 2 1/2" belt is recommended for correct surface and cooling. The three grits listed are the most popular "general purpose" grades.

No. 31028 60" x 2 1/2" 36-Grit Abrasive Belt.....	\$.48
No. 31029 60" x 2 1/2" 80-Grit Abrasive Belt.....	.39
No. 31030 60" x 2 1/2" 150-Grit Abrasive Belt.....	.37

Adjustable Lamp for Bench Grinders

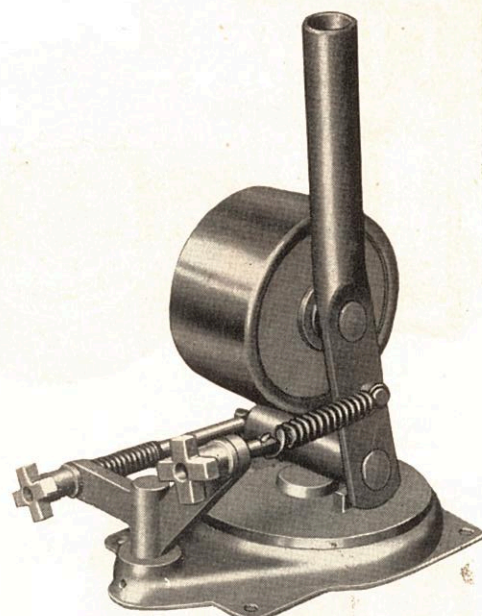
Can be mounted on base of Grinder and attached to line switch. Equipped with flexible "goose-neck," socket with switch, swivel head, metal shade, necessary cord, bolts, etc., for attachment.

No. 22173 Adjustable Lamp Assembly, complete.....\$5.40

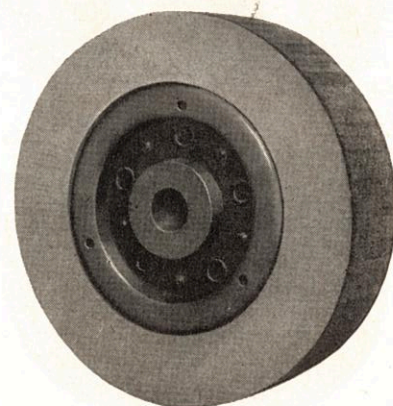
Shatter-Proof Eye-Shields for Bench Grinders

The 6" Heavy-Duty, 8" and 10" Bench Grinders can be equipped with shatter-proof eye-shields, attached to the wheel guards with adjustable brackets. Shields furnished complete with brackets and bolts.

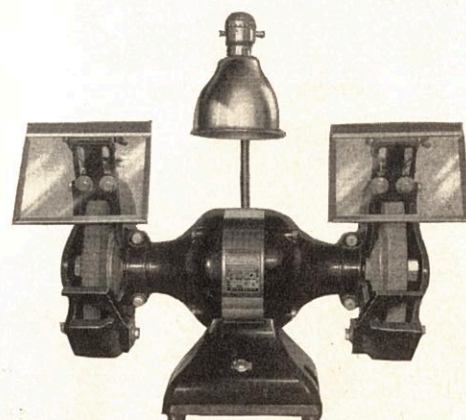
No. 17904 Eye-Shield (5" x 6") for 6" and 8" Grinders.....	\$ 1.75
No. 23641 5" x 6" Replacement Shatter-proof Glass.....	.75
No. 18123 Eye-Shield (6" x 8") for 10" Grinder.....	2.50
No. 23642 6" x 8" Replacement Shatter-proof Glass.....	1.00



BACK-STAND IDLER



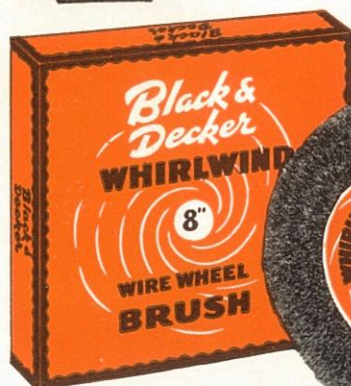
COMPRESS CONTACT WHEEL



EYE-SHIELDS AND LAMP ON BENCH GRINDER



"ELECTRIC TOOL HEADQUARTERS"

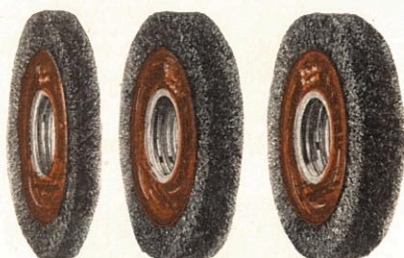


WHIRLWIND* Wire Wheel Brushes

MADE BY US, on our own special machines, Whirlwind Brushes give longer service on high-speed operations. Each tuft is locked independently; hence a more dense and even brushing surface and less danger of loose wire. The wire sizes, number of sections and brush diameters in the complete line adapt Whirlwind Brushes to most any wire brushing job and our arbor hole adaptor system fits them to nearly all grinding, buffing or cleaning machines.

.014" Wire Diameter Size (for rough general purpose cleaning)

Diameter of Brush	No. of Sections	Brush Width		Size Arbor Hole Adaptor*	Catalog Number	Price each*
		Hub	Face			
4"	1	7/16"	5/8"	1/2"	23200	\$.72
	2	1 1/16"	7/8"		23201	.98
	3	1 1/8"	1 1/8"		21397	1.28
6"	1	7/16"	3/4"	1/2"	23202	1.15
	2	1 1/16"	1"		23203	1.62
	3	1 1/8"	1 3/8"		21401	2.14
7"	1	7/16"	3/4"	5/8"	23204	1.50
	2	1 1/16"	1 1/8"		23205	2.10
	3	1 1/8"	1 3/8"		21411	2.78
8"	1	7/16"	7/8"	5/8"	23206	1.62
	2	1 1/16"	1 1/8"		23207	2.25
	3	1 1/8"	1 1/2"		21405	3.00
10"	4	1 5/16"	1 3/8"	3/4"	21107	5.14
	4	1 3/8"	2 3/4"		21409	6.85



3 BRUSH WIDTHS

.0118" Wire Diameter Size (for high-speed buffing operations)

Diameter of Brush	No. of Sections	Brush Width		Size Arbor Hole Adaptor*	Catalog Number	Price each*
		Hub	Face			
4"	1	7/16"	5/8"	1/2"	27000	\$.72
	2	1 1/16"	7/8"		27001	.98
	3	1 1/8"	1 1/8"		27002	1.28
6"	1	7/16"	3/4"	1/2"	27003	1.15
	2	1 1/16"	1"		27004	1.62
	3	1 1/8"	1 3/8"		27005	2.14
8"	1	7/16"	7/8"	5/8"	27009	1.62
	2	1 1/16"	1 1/8"		27010	2.25
	3	1 1/8"	1 1/2"		27011	3.00
10"	4	1 5/16"	1 3/8"	3/4"	27012	5.14
	4	1 3/8"	2 3/4"		27013	6.85



3 WIRE GAUGES

.005" Wire Diameter Size (for fine finishing and burnishing)

Diameter of Brush	No. of Sections	Brush Width		Size Arbor Hole Adaptor*	Catalog Number	Price each*
		Hub	Face			
4"	1	7/16"	5/8"	1/2"	23208	\$1.10
	2	1 1/16"	7/8"		23209	1.40
	3	1 1/8"	1 1/8"		23210	1.84
6"	1	7/16"	3/4"	1/2"	23211	1.80
	2	1 1/16"	1"		23212	2.35
	3	1 1/8"	1 3/8"		23213	3.12
8"	1	7/16"	7/8"	5/8"	23217	2.30
	2	1 1/16"	1 1/8"		23218	3.30
	3	1 1/8"	1 1/2"		23219	4.40

*ARBOR HOLE ADAPTORS: Whirlwind Brushes are equipped with washer-type adaptors. Price of Brush includes one set of size shown in table above. Other sizes, shown in tables below may be substituted if specified on order. Extra sets may also be ordered, in desired sizes, at prices shown.

For 4" Brushes: 1/2" arbor hole is standard. Solid bushing can be furnished to fit 3/8" arbor.
Price, each..... \$0.20

No. 23809 For 1-section Brush
No. 23810 For 2-section Brush
No. 14066 For 3-section Brush

For New Type 6" Brushes: Built-in arbor hole plates have 1" hole. Extra adaptors available in sizes below. Same adaptors fit 1, 2 or 3-section Brushes.
Price, per pair..... \$0.06

Cat. No.	Hole Size	Cat. No.	Hole Size
14080	1/2"	14082	3/4"
14081	5/8"	14771	7/8"

For 7", 8", 10" and 12" Brushes: Side plate has 2" hole. Extra adaptors available in sizes shown below. Same adaptors fit 1, 2 or 3-section Brushes
Price, per pair..... \$0.10

Cat. No.	Hole Size	Cat. No.	Hole Size
14067	3/8"	14072	1"
14068	1/2"	14073	1 1/8"
14069	5/8"	14074	1 1/4"
14070	3/4"	14075	1 3/8"
14071	7/8"	14076	1 1/2"
		14077	1 3/4"

* Trade-mark Reg. U. S. Pat. Off.



ARBOR ADAPTORS

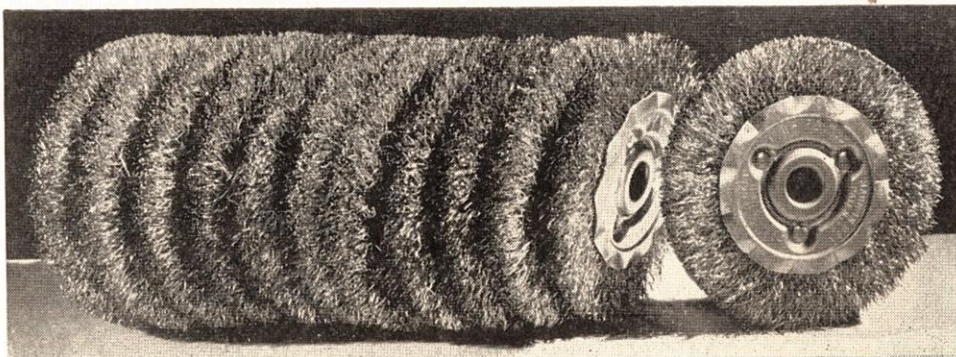


"ELECTRIC TOOL HEADQUARTERS"

Black & Decker

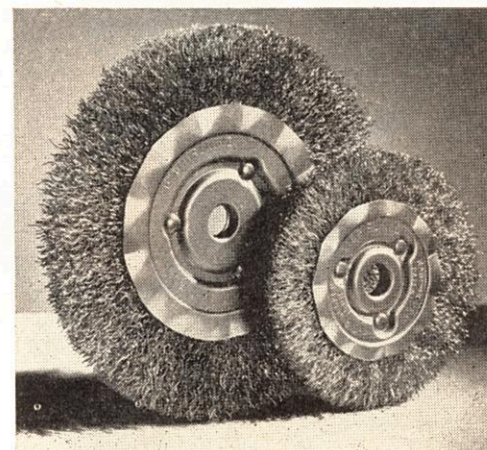
WHIRLWIND Wire Wheel Brushes

Single Sections
Bulk Packed



12 SECTIONS TO A CARTON

YOU CAN NOW adapt "Whirlwind" Brush sections to any length spindle—build a brushing surface to any width you wish—mass the sections solidly for inches or feet—space them to match shapes or patterns—in fact, you can "tailor-make" a wire wheel brush for your exact requirements from bulk-packaged "Whirlwind" sections. Each section is a complete brush, with built-in arbor adaptor and face plates—so you can use the sections singly or in groups. The hub and face plate design permit solid massing of the sections—or spacers can be used to make the brushing surface more flexible. It is entirely possible to group brushes of different diameters to handle irregular castings, forgings or other odd-shaped surfaces. "Whirlwind" bulk-packed sections are now available in 4" and 6" diameters. $\frac{1}{2}$ " arbor holes are standard in both; but 6" sections can also be furnished with $\frac{5}{8}$ ", $\frac{3}{4}$ ", $\frac{7}{8}$ " or 1" arbor holes, on special order. Three wire sizes are available: .014" for rough, general purpose cleaning; .0118" for high speed buffing operations; .005" for fine finishing and burnishing. The bulk-packed single section brushes are packaged in cartons of 12 sections, all of one diameter, one wire size and one arbor hole size. The prices shown are list prices per individual section.



6" AND 4" DIAMETERS

Specifications

.014" Wire Diameter Size (for rough, general purpose cleaning.)

Diameter of Brush	Brush Width Hub Face	Arbor Hole Size	Catalog Number	Price Per Section*
4"	$\frac{13}{32}$ " $\frac{5}{8}$ "	$\frac{1}{2}$ "	31110	\$0.67
6"	$\frac{15}{32}$ " $\frac{3}{4}$ "	$\frac{1}{2}$ "**	30434	.95
		$\frac{5}{8}$ "	30437	.95
		$\frac{3}{4}$ "	30440	.95
		$\frac{7}{8}$ "	30443	.95
		1"	30446	.95

.0118" Wire Diameter Size (for high speed buffing operations.)

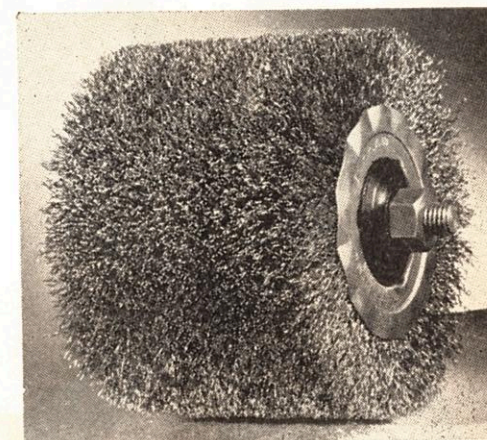
Diameter of Brush	Brush Width Hub Face	Arbor Hole Size	Catalog Number	Price Per Section*
4"	$\frac{13}{32}$ " $\frac{5}{8}$ "	$\frac{1}{2}$ "	31108	\$0.67
6"	$\frac{15}{32}$ " $\frac{3}{4}$ "	$\frac{1}{2}$ "**	30433	.95
		$\frac{5}{8}$ "	30436	.95
		$\frac{3}{4}$ "	30439	.95
		$\frac{7}{8}$ "	30442	.95
		1"	30445	.95

.005" Wire Diameter Size (for fine finishing and burnishing.)

Diameter of Brush	Brush Width Hub Face	Arbor Hole Size	Catalog Number	Price Per Section*
4"	$\frac{13}{32}$ " $\frac{5}{8}$ "	$\frac{1}{2}$ "	31106	\$1.05
6"	$\frac{15}{32}$ " $\frac{3}{4}$ "	$\frac{1}{2}$ "**	30432	1.70
		$\frac{5}{8}$ "	30435	1.70
		$\frac{3}{4}$ "	30438	1.70
		$\frac{7}{8}$ "	30441	1.70
		1"	30444	1.70

*Packaged and sold only in cartons of 12 single sections, all of one wire size, diameter and arbor hole size.

**In the 6" diameter sections, $\frac{1}{2}$ " is the standard arbor hole size. Other arbor hole sizes will be furnished only if specified on the order.



MAKE BRUSH OF ANY
DESIRED WIDTH



"ELECTRIC TOOL HEADQUARTERS"

Electric Die Grinders

2-Inch (No. 7) Die Grinder

Specifications

	Bonnet Cap Switch-in-Line	Extended Switch Handle
Maximum Wheel Size*	2" x 1/2" x 1/2"	2" x 1/2" x 1/2"
No-load Spindle Speed	19,000 R.P.M.	19,000 R.P.M.
Net Weight	2 1/2 lbs.	3 lbs.
Shipping Weight	5 1/2 lbs.	6 lbs.
Overall Length	9"	14 3/4"
Catalog No. (specify voltage)	288	289

Price, complete **\$40.00** **\$43.00**

Standard Equipment — 3-wire cable and plug; No. 21755 1/4" Chuck with No. 21955 Reducing Sleeve; two No. 20285 Wrenches; "universal" motor.

Replacement and Extra Equipment —

No. 20330	2" High-speed bonded Grinding Wheel	\$1.15
No. 20353	2" Wheel Guard	1.75
No. 21757	Wheel Arbor	1.50
No. 20285	Double End Wrench (5/16" and 11/16")	.25
No. 21755	1/4" S. A. Chuck with 1/8" Reducing Sleeve	3.50
No. 21955	1/8" Reducing Sleeve Only, for No. 21755 Chuck	.75
No. 20846	Tool Post Holder	5.00

2 1/2-Inch (No. 12) Die Grinder

Specifications

	Bonnet Cap Switch-in-Line	Extended Switch Handle
Maximum Wheel Size*	2 1/2" x 1/2" x 1/2"	2 1/2" x 1/2" x 1/2"
No-load Speed	17,500 R.P.M.	17,500 R.P.M.
Net Weight	4 lbs.	4 1/4 lbs.
Shipping Weight	7 lbs.	7 1/4 lbs.
Overall Length	12 1/4"	16 1/8"
Catalog No. (specify voltage)	291	290

Price, complete **\$45.00** **\$48.00**

Standard Equipment — 3-wire cable and plug; No. 26533 1/4" Chuck with No. 21955 Reducing Sleeve; two No. 20285 Wrenches; "universal" motor.

Replacement and Extra Equipment —

No. 20329	2 1/2" High-speed bonded Grinding Wheel	\$1.30
No. 26537	2 1/2" Wheel Guard	2.25
No. 26361	Outer Wheel Washer	1.00
No. 26362	Inner Wheel Washer	.50
No. 20285	Double End Wrench (5/16" and 11/16")	.25
No. 26533	1/4" S. A. Chuck with 1/8" Reducing Sleeve	3.50
No. 21955	1/8" Reducing Sleeve Only, for No. 26533 Chuck	.75
No. 26530	Tool Post Holder	5.00
—For Types A, B No. 12 Die Grinder—		
No. 21757	Wheel Arbor	1.50
No. 20845	Tool Post Holder	5.00

3-Inch (No. 20) Die Grinder

Maximum Wheel Size*	3" x 1/2" x 3/8"
No-load Speed	16,000 R.P.M.
Weight: Net	7 lbs.; Shipping 11 1/2 lbs.
Overall Length	17 3/4"
Catalog No. 499 with extended switch handle	

Price, complete (specify voltage) **\$55.00**

Standard Equipment — 3-wire cable and plug; No. 24187 1/4" Chuck with No. 21955 Reducing Sleeve; two No. 20285 Wrenches; "universal" motor.

* No wheels are supplied with any Die Grinders. Caution: Use only with high-speed bonded wheels. Ask your jobber about wheels and burrs for use with these units.

Standard Voltage — 110; also available for 220 or 250 volts.

Replacement and Extra Equipment, same as 3" Portable Grinder, listed below.

3" Portable Grinder

Wheel Size	3" x 1/2" x 3/8"
No-load Speed	16,000 R.P.M.
Weight: Net	7 5/8 lbs.; Shipping 11 1/2 lbs.
Overall Length	16 3/4"
Catalog No. 395 with extended switch handle	

Price, complete (specify voltage) **\$55.00**

Standard Equipment — 3-wire cable and plug; No. 24317 3" high-speed wheel; No. 31456 Clamp Nut; No. 31457 Wheel Guard; two No. 20285 Wrenches; "universal" motor.

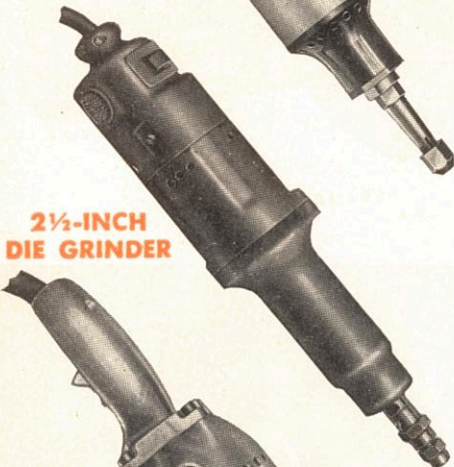
Standard Voltage — 110; also available for 220 or 250 volts.

Replacement and Extra Equipment for 3" Die and 3" Portable Grinders.

No. 24317	3" High-speed bonded Grinding Wheel	\$1.45
No. 31457	3" Wheel Guard Assembly, complete	2.50
No. 31456	Clamp Nut	.75
No. 20285	Double End Wrench (5/16" and 11/16")	.25
No. 24187	1/4" S. A. Chuck with 1/8" Reducing Sleeve	3.50
No. 21955	1/8" Reducing Sleeve Only for No. 24187 Chuck	.75



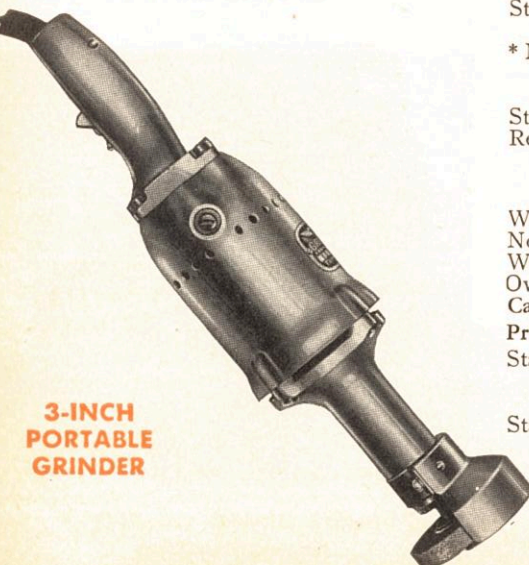
**2-INCH
DIE GRINDER**



**2 1/2-INCH
DIE GRINDER**



**3-INCH
DIE GRINDER**



**3-INCH
PORTABLE
GRINDER**

"ELECTRIC TOOL HEADQUARTERS"

Black & Decker

Portable Electric Grinders

PORTABLE GRINDERS have splined gear mountings, steel inserts for bearings and welded steel wheel guards. Full size ball bearings, set at extreme ends of wheel spindle, absorb all side thrust and insure long life. Armature shaft also mounted on ball bearings.

Completely enclosed commutator and switch compartments protect these parts from abrasive dust.

Improved ventilating system forces air straight through ample slots, which prevent clogging and accumulation of dirt.

Shaped grips prevent tool turning in operator's hand. Adjustable wheel guards can be turned to any desired position.

Applications — Grinding, wire brushing, buffing and polishing all types of metal surfaces, where the grinder must be taken to the work. Removing rust, scale, paint, etc. Grinding or cutting off rivets, bolts, pins, studs, etc. Smoothing welded surfaces.

4" Portable Grinder

CATALOG No. 59

Wheel size 4" x 3/4" x 1/2".
No-load speed 5250 R.P.M.
Weight: Net 13 1/4 lbs.; Shipping 18 lbs.
Overall length 20 1/2".
Standard Equipment — 3-conductor cable and plug; toggle switch; grip end handle; adjustable steel wheel guard and one grinding wheel; "universal" motor.

Catalog No. 59 (specify voltage)

Price, Complete

\$62.00

5" Portable Grinder

CATALOG No. 60

Wheel size 5" x 3/4" x 1/2".
No-load speed 4500 R.P.M.
Weight: Net 15 1/2 lbs.; Shipping 21 lbs.
Overall length 23 1/8".
Standard Equipment — 3-conductor cable and plug; plunger switch; grip end handle; adjustable steel wheel guard and one grinding wheel; "universal" motor.

Catalog No. 60 (specify voltage)

Price, complete

\$80.00

6" Portable Grinder

CATALOG No. 61

Wheel size 6" x 1" x 5/8".
No-load speed 3800 R.P.M.
Weight: Net 20 lbs.; Shipping 26 lbs.
Overall length 25".
Standard Equipment — 3-conductor cable and plug; plunger switch; grip end handle; adjustable steel wheel guard and one grinding wheel; "universal" motor.

Catalog No. 61 (specify voltage)

Price, complete

\$100.00

8" Portable Grinder

CATALOG No. 62

Wheel size 8" x 1" x 5/8".*
No-load speed 4000 R.P.M.†
Weight: Net 25 1/2 lbs.; Shipping 32 3/4 lbs.
Overall length 26 3/4".

Standard Equipment — 3-conductor cable and plug; dust-sealed plunger switch; grip end handle, suspension eye-bolt; adjustable steel wheel guard; "universal" motor. No wheels supplied with 8" grinder.

* For use with special bonded wheels for high speed service only.

† Optional speed 5000 R.P.M., no extra charge

Optional Equipment — Spade type switch handle in place of straight grip handle — no extra charge.

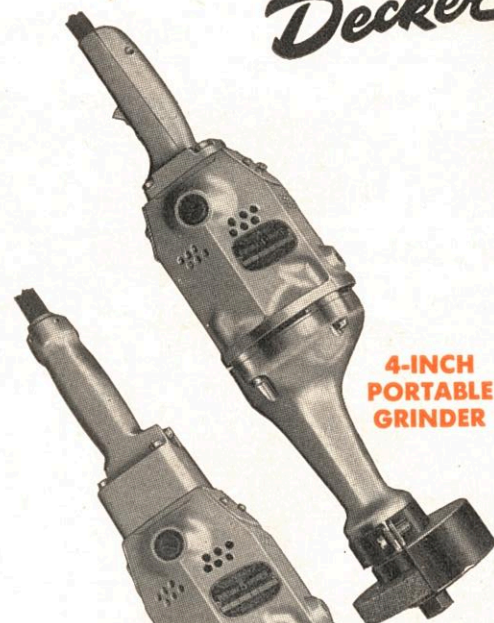
Catalog No. 62 (specify voltage)

Price, complete

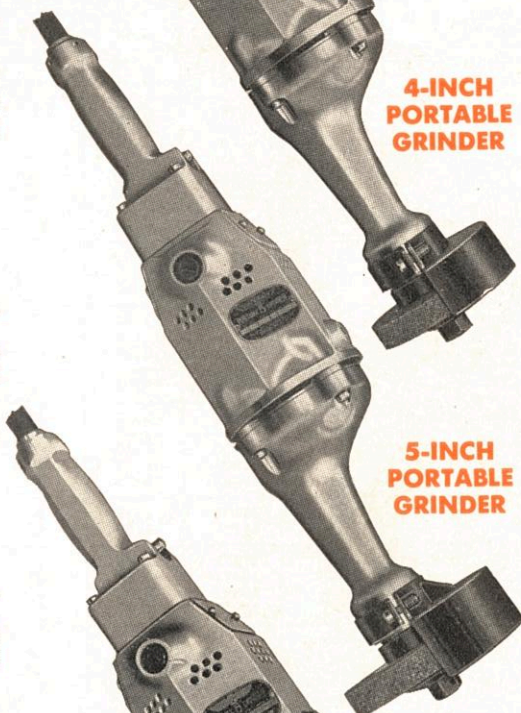
\$120.00

Standard Voltage for all units — 110; also available for 220 or 250 volts.
Wheel rotation — counter-clockwise, facing wheel-end.

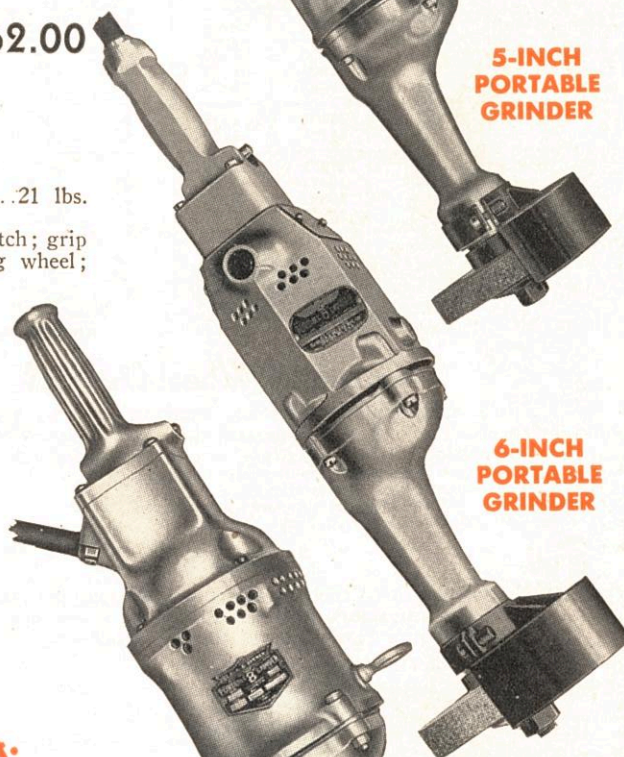
See Pages 22, 23 and 26 for Wheels and Wire Brushes.



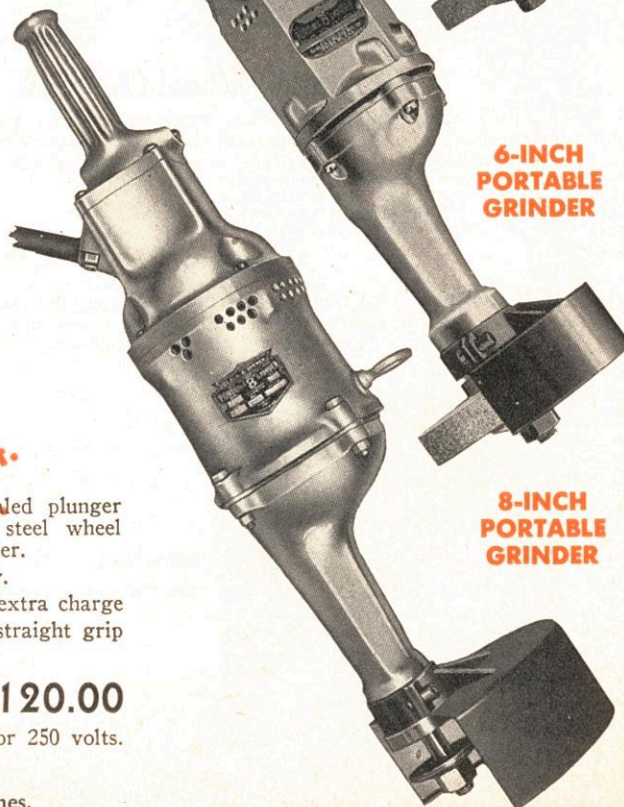
**4-INCH
PORTABLE
GRINDER**



**5-INCH
PORTABLE
GRINDER**



**6-INCH
PORTABLE
GRINDER**



**8-INCH
PORTABLE
GRINDER**

TEMPORARY SHORTAGES
May not be delivered in this unit.
Check with your distributor



"ELECTRIC TOOL HEADQUARTERS"

Grinding Wheels

Unit	Cat. No.	Price	Description			
			Diam.	Face	Hole	Grade
6" Junior Bench Grinder (A)	18124 18125	\$1.70 1.70	6"	5/8"	1/2"	Fine 60K Medium 36G
6" H.-D. Bench Grinder (H, K, and L)	15315 15314	1.95 1.95	6"	3/4"	1/2"	Medium 36G Fine 60K
6" Bench Grinder (Ball Bearing) (G)	13950 5183	2.30 2.30	6"	3/4"†	1/2"	Medium 36G Fine 60K
7" Bench Grinder (Type B)	14236 14235	2.90 2.90	7"	1"	5/8"	Medium 36G Fine 60K
8" Bench Grinder (Type F)	18061 18062	4.90 4.90	8"	7/8"	5/8"	Medium 36K Fine 60M
10" Bench Grinder (B and C)	10275 10274	7.35 7.35	10"	1"	3/4"	Medium 40K Coarse 24H
Portable Grinders and Die Grinders	20330 20329 24317	1.15 1.30 1.45	2" 2 1/2" 3"	1/2" 1/2" 1/2"	1/4" 1/4" 3/8"	36-598E 36-598E 36-598E
4" Portable Grinder	6772	1.20	4"	3/4"	1/2"	Medium 36G
5" Portable Grinder	3042	1.70	5"	3/4"	1/2"	Medium 36G
6" Portable Grinder	3148	2.25	6"	1"	5/8"	Medium 36G
7" Junior Sander	10663	1.95	4"	3/4"***	1/2"	Medium 36H
7" Special Sander	24050	5.50	4"	1"††	5/8"	163-9-K4
7" H.-D. Sander	23444	6.90	5"	1 1/4"††	5/8"	163-9-K4
9" H.-D. Sander	18039	8.35	6"	1 1/4"††	5/8"	163-9-K4
1/2" Refacer (Types A to EF)	10495 7923 8605	1.10 1.10 1.20	3" 3" 3"	1/2" 1/2" 1/2"*	1/4" 1/4" 1/2"	Hard Valves Soft Valves 40K
5/8" Refacer	11196 11197	1.80 1.80	4" 4"	1/2" 1/2"	3/4" 3/4"	Hard Valves Soft Valves
Super-Service Refacer	31471 16371 19897 22813	2.70 2.45 2.70 2.70	4" 4" 4" 4"	1/2"*** 1/2" 1/2"† 1/2"***	5/8" 5/8" 5/8" 5/8"	Hard Valves Stellite Valves 90° Valves Fine 80P
Micrometer and Rocker Arm Attachment	20939	2.40	4"	3/4"***	1/2"	36R
1/4" Drill	21463	.70	3"	1/2"	1/2"	40L

* Offset. † Recessed. ** Cup. †† Saucer—11 thread bushing.

Grinding Wheel Dressers

TWO TYPES of Wheel Dressers are available for truing and cleaning Bench Grinder Wheels. The cutter type dresses the wheel quickly for fast grinding; the diamond type produces a very accurate, smooth face for finish-grinding.

No. 19115 Cutter-type Dresser (with spare cutter set)	\$0.95
No. 19983 Replacement Cutter Set for above	.15
No. 21961 Diamond Wheel Dresser, complete with diamond	3.75
No. 5574 Diamond and Nib for No. 21961 Dresser	3.00

Cotton Buffs

USED ON Portable or Bench Grinders for general purpose buffing, polishing, coloring, cutting and finishing. Mounted directly on wheel spindle. Available in full disc, loose type and in a harder, spiral stitched, pieced-type.

Full-disc. Loose Buffs — 50-Ply, Grade L.

No. 26870 4" x 5/8" x 1/2"; Stitched 2 Rows	\$.75
No. 26871 6" x 5/8" x 1/2"; Stitched 2 Rows	1.20
No. 26872 8" x 5/8" x 5/8"; Stitched 2 Rows	2.00
No. 26873 10" x 5/8" x 3/4"; Stitched 3 Rows	2.95

Pieced-type, Narrow Buffs, Grade SB.

No. 26874 6" x 1/4" x 1/2"; 3/8" Spiral Stitched	.55
No. 26875 8" x 1/4" x 5/8"; 3/8" Spiral Stitched	.90
No. 26876 10" x 1/4" x 3/4"; 3/8" Spiral Stitched	1.25

Spindle Extensions

USE ON Bench Grinders where work requires extra clearance around wheel. Tapped hole threads on Grinder spindle.

For 6" Bench Grinders —

No. 3564 Tapered Buffing Spindle (Left Hand)	\$5.00
No. 3565 Tapered Buffing Spindle (Right Hand)	5.00
No. 6664 Spindle Extension (Right Hand)	4.00
No. 6665 Spindle Extension (Left Hand)	4.00

For 8" Bench Grinder —

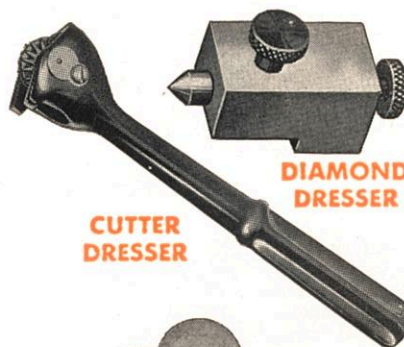
No. 6666 Spindle Extension (Right Hand)	5.50
No. 6667 Spindle Extension (Left Hand)	5.50

For 10" Bench Grinder —

No. 12297C Spindle Extension (Right Hand)	8.00
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GRINDING WHEELS



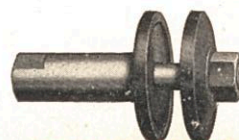
DIAMOND DRESSER



COTTON BUFFS



TAPER BUFF SPINDLE



SPINDLE EXTENSION

Black & Decker

THREADING HOLES in steel, cast iron, brass or aluminum is performed with these tools eight times faster than by hand. Automatic reversing mechanism backs the tap out of the threaded hole at high speed when operator pulls backward. No reversing switch is needed. Will greatly reduce tap breakage.

(Formerly No. 8 Tapgun)
CATALOG No. 383

Specifications

Standard Equipment — 3-conductor cable and plug; 3-jaw Jacobs chuck and key; 2-pole automatic-release trigger switch and locking pin mounted as a unit with cord protector; "universal" motor.

Standard Voltage — 110; also available for 220 or 250 volts.

Catalog No. 383 (specify voltage)

Price, complete	\$64.00
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With special tap-holding chuck	\$67.50
No. 23926 Jacobs Tap-holding Chuck.....	8.00

* Trade-mark Reg. U. S. Pat. Off.

74 Men Tapper:
(Formerly No. 22 Tapper)

CATALOG No. 90

TEAMS UP with No. 12 or No. 22 Power Driver for assembly operations in metal. Equipped with auxiliary side handle for better aim and control.

Specifications

No-load speed (tapping).....300 R.P.M.; Reversing.....500 R.P.M.
Weight: Net10½ lbs.; Shipping14½ lbs.
Overall length15¾".

Standard Equipment — 3-conductor cable and plug; $\frac{3}{8}$ " Jacobs chuck and key; automatic-release switch and locking pin; detachable side handle; "universal" motor.

Standard Voltage — 110; also available for 220 or 250 volts.

Catalog No. 90 (specify voltage)

Price, complete	\$85.00
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With special tap-holding chuck.....\$90.00

No. 20454	Jacobs Tap-holding Chuck.....	10.00
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Special speeds — 500, 700 or 1200 R.P.M.....\$5.00 extra

No. 22148	Bench Stand (for both Tapgun and Tapper)	15.00
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CATALOG No. 89

FOR CONTINUOUS use where maintenance of constant working temperature is important. Thermostatic control brings the glue up to 150° Fahrenheit rapidly (best working temperature), and maintains that temperature within 5°. Nichrome heating element sealed and protected against moisture and foreign substance. Cast iron glue pot is machined to fit in the water jacket, conserving heat and reducing current consumption. Equipped with convenient carrying handle and heavy iron brush wiper.

Applications — Book binderies, printing plants, furniture and cabinet factories, toy factories, piano factories, etc.

Specifications — Capacity of glue container.....2 quarts.

Weight: Net.....14½ lbs.; Shipping.....16 lbs.

Furnished complete with nichrome heating element, iron water pot, cast-iron glue pot, 3-wire cable and plug.

Supplied for either 110 volts or 220 volts, alternating current only;
not for D. C.

not for D. C.

Catalog No. 89 (specify voltage)

Price, complete \$19.50





"ELECTRIC TOOL HEADQUARTERS"

No. 4 Adjustable Clutch Torsimeter*

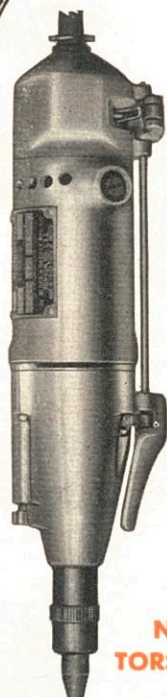
(Formerly No. 3 Torsimeter)

CATALOG No. 244

A VERY light, compact tool for self-threading screws in light metal and wood. Can be equipped with a socket for hex. head screws. Has paddle switch control at chuck end for easy operation, especially in suspended position.

Specifications

Capacity.....up to No. 4 Screws; No-load Speed1000 R.P.M.
 Overall Length (including bit).....11½".
 Weight: Net2¾ lbs.; Shipping4 lbs.
 Standard Equipment — 3-wire cable with plug; toggle-switch mounted in end cap with paddle switch control; one No. 13208 bit with centering sleeve, spring sleeve and protector; "universal" motor.
 Standard Voltage — 110; also available for 220 or 250 volts.
 Catalog No. 244 (specify voltage) **\$63.00**
 Price, complete
 Reversing Switch\$7.50 extra



**No. 3
TORSIMETER**

No. 10 Positive Clutch SCRUGUN*

(Formerly No. 8 SCRUGUN)

CATALOG Nos. 402, 403, 404

A COMPACT Power Driver for production assembly use; teams up with Holgun and Tapgun; has same structural features. "Free" spindle is disengaged until operating pressure closes clutch. Keeps driving until clutch is released by operator. Standard unit is perfectly balanced for portable "free-hand" driving, has "Pistol Grip and Trigger Switch." The Center-Drive unit is best for suspended use; has bonnet grip (illustrated) or paddle switch; no handles needed.

Specifications

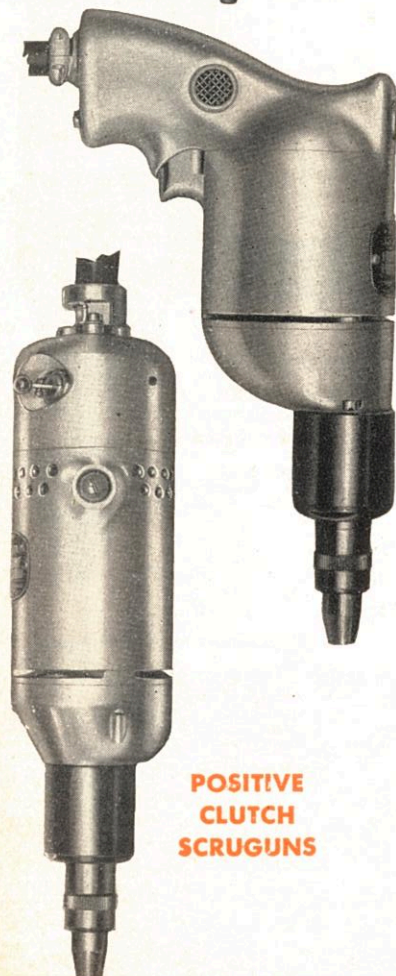
Capacity: Wood Screws.....up to No. 10 x 2".
 Self-Tapping Screws.....up to No. 12.
 Machine Screws and Nuts.....up to ¼" diam.
 No-load Standard Speed.....750 R.P.M.
 Optional Speeds (no extra charge)—500, 1000 or 1500 R.P.M.
 Standard Equipment — 3-wire cable and plug; 20° positive clutch; No. 13207 bit with protector, centering and spring sleeves; "universal" motor.
 Standard Voltage — 110; also available for 220 or 250 volts.

Standard Unit

Net Weight.....3½ lbs.; Shipping.....4¾ lbs.
 Overall Length (including bit).....8¾".
 Price, Catalog No. 402.....**\$47.00**
 Special 13° clutch instead of standard angle.....\$2.50 extra

Center-Drive Unit

Net Weight.....4¾ lbs.; Shipping.....6 lbs.
 Overall Length (including bit).....12".
 Price, Catalog No. 403 (with bonnet grip).....**\$52.00**
 Catalog No. 404 (with paddle switch).....**\$55.00**
 Special 13° clutch instead of standard angle.....\$2.50 extra
 Reversing Switch for Center-Drive Units only.....\$7.50 extra
 Catalog No. 22148 Bench Stand.....\$15.00



**POSITIVE
CLUTCH
SCRUGUNS**

* Trade-mark Reg. U. S. Pat. Off.



"ELECTRIC TOOL HEADQUARTERS"

Black & Decker

No. 10 Adjustable Clutch SCRUGUN*

(Formerly No. 8 Adjustable Clutch SCRUGUN)

CATALOG Nos. 350, 380, 381

WITH ADJUSTABLE clutch, every screw is driven automatically to a uniform and pre-determined tension. "Free" spindle idles until operating pressure engages clutch. Double clutch relieves operator of twisting motion. Standard unit has "Pistol Grip and Trigger Switch"; best for portable, free-hand use. Center-Drive unit is ideal for suspended use; has either bonnet grip with toggle switch, or paddle switch (illustrated).

Specifications

Capacity: Self-tapping screws.....up to No. 12.
Machine Screws.....up to 1/4" diam.
No-load Standard Speed.....750 R.P.M.*
Standard Equipment — 3-wire cable and plug, No. 13207 bit with protector, centering and spring sleeves; "universal" motor.
Standard Voltage — 110; also available for 220 or 250 volts.

Standard Unit

Net Weight:.....3 3/4 lbs.; Shipping.....5 1/4 lbs.
Overall Length (including bit).....10 1/4"

Price, Catalog No. 350.....\$57.00

Center-Drive Unit

Net Weight:.....5 lbs.; Shipping.....6 3/4 lbs.
Overall Length (including bit).....13 1/2"

Price, Catalog No. 380 (with bonnet grip).....\$62.00

Catalog No. 381 (with paddle switch).....\$65.00

*Optional Speeds (no extra charge).....500, 1000 or 1500 R.P.M.
Reversing Switch for Center-Drive units only.....\$7.50 extra
Catalog No. 22148 Bench Stand.....\$15.00

No. 10 90°-Angle Adjustable Clutch SCRUGUN*

(Formerly No. 8 90° Angle SCRUGUN)

SUPPLEMENTING this compact tool with 90°-angle drive adapts the Scrugun to work in the most limited clearances. Several heads adapt the tool to screw-driving and nut-running. Available with standard "pistol grip," bonnet grip or paddle switch.

Specifications

Capacity: Machine screws and nuts.....up to 1/4" diam.
Self-tapping screws.....up to No. 12
No-load Speed.....500 R.P.M.*

	Standard Unit	Bonnet† Grip	Paddle† Switch
Net Weight	4 1/4 lbs.	5 1/4 lbs.	5 1/4 lbs.
Shipping Weight	6 lbs.	7 lbs.	7 lbs.
Overall Length	10 3/4"	14 1/8"	14 1/8"
Switch Type	Trigger	Toggle	Toggle
Catalog Number.....	374	390	391

Price, complete with one head**

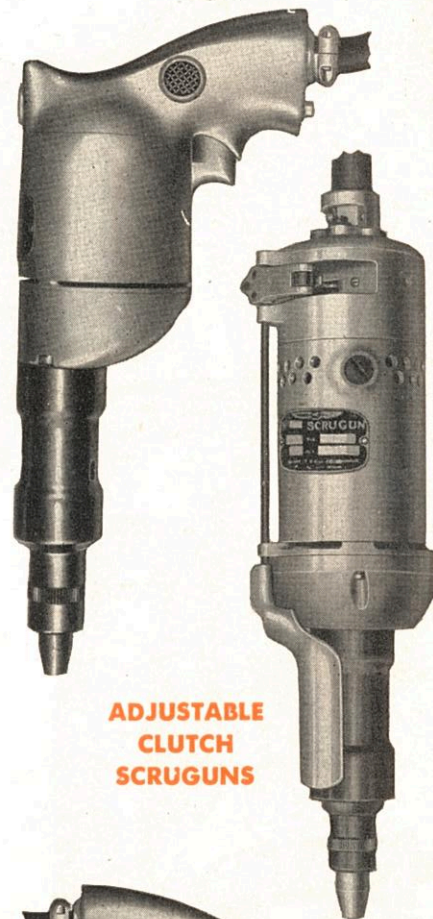
Pt. No. 100 to 108 Heads....	\$82.00	\$87.00	\$90.00
Pt. No. 150 to 152 Heads....	90.00	95.00	98.00
Pt. No. 156 Head	102.00	107.00	110.00

Standard Equipment — 3-wire cable and plug; adjustable clutch and one 90°-Angle Head as specified; "universal" motor.
Standard Voltage — 110; also available for 220 or 250 volts.

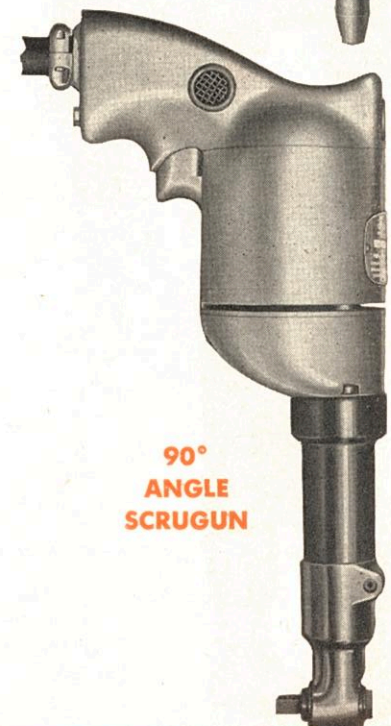
*Optional speeds (no extra charge) — 350, 750 or 1000 R.P.M.

**See Page 35 for 90°-Angle Head Specifications.

† Bonnet Grip and Paddle Switch units are similar to Center Drive units.



**ADJUSTABLE
CLUTCH
SCRUGUNS**



**90°
ANGLE
SCRUGUN**



*Trade-mark Reg. U. S. Pat. Off.





"ELECTRIC TOOL HEADQUARTERS"

No. 14 Positive Clutch Screw Driver

(Formerly No. 12 Power Driver)

CATALOG No. 53

POSITIVE PIN-TYPE clutch in the driving spindle idles until the bit "finds" the screw slot.

Specifications

Capacity: Wood screws up to No. 14 x 2½".
Self-tapping screws up to ⅝" diam.
Lag screws up to ¼" x 2".
Machine screws and nuts up to ⅜" diam.
Standard No-load speed 500 R.P.M.*
Weight: Net 6¾ lbs.; Shipping 9 lbs.
Overall length (not including bit) 13¼".
Standard equipment — Quick-change chuck, with ⅞" hex. socket; 20° positive clutch; 3-conductor cable and attachment plug; and one each No. 5330 and No. 5344 Standard Bits with finders; automatic-release switch with locking pin; "universal" motor.
Standard Voltage — 110; also available for 220 or 250 volts.

Catalog No. 53 (specify voltage)

Price, complete **\$58.00**

* Special speeds — 750, 1000 or 1600 R.P.M. \$2.50 extra

No. 30426 Auxiliary Side Handle 2.75 extra

Special 13° or 30° clutch, instead of standard angle \$2.50 extra

No. 14 Adjustable Clutch Screw Driver

(Formerly No. 12 Power Driver)

CATALOG No. 169

Specifications

Capacity: Same as above.
Standard No-load speed 500 R.P.M.*
Net Weight 8 lbs.; Shipping 12 lbs.
Overall length (not including bit) 15½".
Standard Equipment — 3-conductor cable and plug; quick-change chuck with ⅞" hex. socket; adjustable clutch; one each No. 5330 and No. 5344 Standard Bits with finders; automatic-release switch with locking pin; "universal" motor.
Standard Voltage — 110; also available for 220 or 250 volts.

Catalog No. 169 (specify voltage)

Price, complete **\$78.00**

* Special speeds — 750, 1000 or 1600 R.P.M. \$2.50 extra

No. 30426 Auxiliary Side Handle 2.75 extra

No. 14 90°-Angle Adjustable Clutch Screw Driver

(Formerly No. 12 Power Driver)

CATALOG No. 172

A NUMBER of right-angle drive heads adapt this tool to special assembly operations.

Specifications

Capacity: Same as above.
Standard No-load speed 500 R.P.M.*; Overall length 18¼".
Weight: Net 9½ lbs.; Shipping 13 lbs.
Standard Equipment — 3-conductor cable and plug; special geared end and one right-angle head; automatic-release switch; "universal" motor.
Available Right-Angle Heads and Catalog Numbers:

Head (Part No.)	Equipped with:	Catalog No. (Complete Unit)	Head (Part No.)	Equipped with:	Catalog No. (Complete Unit)
300	½" Square Shank	172-300	305	½" Square Shank	172-305
301	½" Hex. Socket	172-301	308	⅝" Hex. Socket	172-308
303	⅜" Square Shank	172-303	350	⅞" Hex. Chuck	172-350
304	1⅞" Hex. Socket	172-304			

Standard Voltage — 110; also available for 220 or 250 volts.

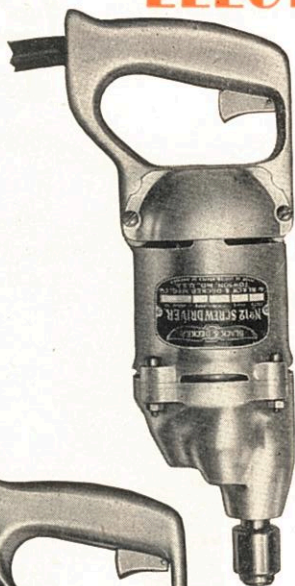
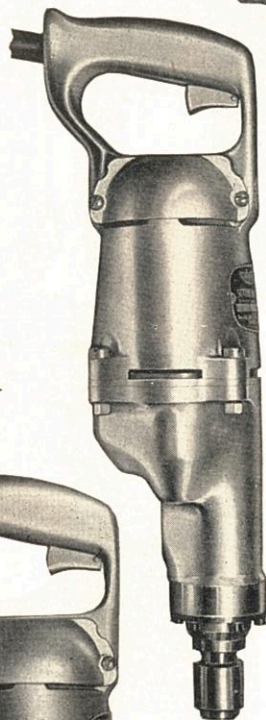
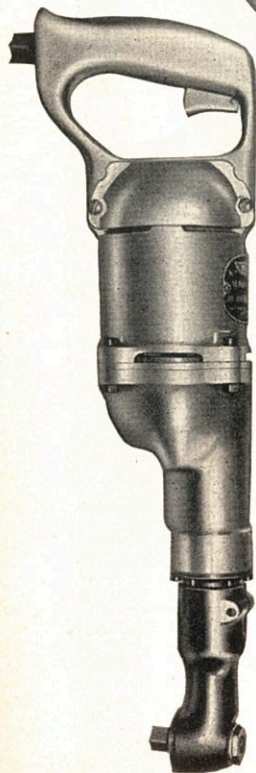
Price, with any one Head (except No. 305) **\$106.00**

with No. 305 Head **116.00**

* Special speeds — 350 or 700 R.P.M. \$2.50 extra

Reversing switch for all No. 14 Drivers 7.50 extra

Cat. No. 22148 Bench Stand \$15.00



"ELECTRIC TOOL HEADQUARTERS"

Black & Decker

No. 18 Positive Clutch Screw Driver

(Formerly No. 22 Power Driver)

CATALOG No. 54

Specifications

Capacity: Wood screws up to No. 18 x 3½".
 Self-tapping screws up to ⅜" diameter.
 Lag screws up to ⅝" x 3".
 Machine screws and nuts up to ½" diameter.
 Standard No-load speed 500 R.P.M.*
 Weight: Net 9 lbs.; Shipping 11¾ lbs.
 Overall length (not including bit) 14¼".
 Standard Equipment—Quick-change chuck, with ⅞" hex. socket;
 20° positive clutch; 3-conductor cable and plug; and one each No.
 5343 and No. 5329 Standard Bits with finders; automatic-release
 switch with locking pin; "universal" motor.

Standard Voltage — 110; also available for 220 or 250 volts.

Catalog No. 54 (specify voltage)

\$72.00

Price, complete

*Special speeds — 750, 1000 or 1600 R.P.M. \$2.50 extra

Special 13° or 30° Clutch, instead of standard angle 2.50 extra

No. 30427 Auxiliary Side Handle 2.75 extra

No. 18 Adjustable Clutch Screw Driver

(Formerly No. 22 Power Driver)

CATALOG No. 164

Specifications

Capacity: Same as above.
 Standard No-load speed 500 R.P.M.*
 Net Weight 10½ lbs.; Shipping 16 lbs.
 Overall length (not including bit) 17¼".
 Standard Equipment — 3-conductor cable and plug; quick-change
 chuck with ¾" hex. socket; adjustable clutch; one each No. 5343
 and No. 5329 Standard Bits with finders; automatic-release switch
 with locking pin; "universal" motor.

Standard Voltage — 110; also available for 220 or 250 volts.

Catalog No. 164 (specify voltage)

\$90.00

Price, complete

*Special speeds — 750, 1000 or 1600 R.P.M. \$2.50 extra

No. 30427 Auxiliary Side Handle 2.75 extra

No. 18 90°-Angle Adjustable Clutch Screw Driver

(Formerly No. 22 Power Driver)

CATALOG No. 167

BY ADDING the advantages of the right-angle drive to the No. 22 Power Driver, limited clearance, "corner" work and other obstacles to the efficient use of the straight drive unit are entirely overcome.

Specifications

Capacity: Same as above.
 Standard No-load speed 500 R.P.M.*; Overall length 19⅝".
 Weight: Net 12 lbs.; Shipping 18 lbs.
 Standard Equipment — 3-conductor cable and plug; special geared end and one
 right-angle head; automatic-release switch; "universal" motor.

Available Right-Angle Heads and Catalog Numbers.

Head (Part No.)	Equipped with:	Catalog No. (Complete Unit)	Head (Part No.)	Equipped with:	Catalog No. (Complete Unit)
300	½" Square Shank	167-300	305	½" Square Shank	167-305
301	½" Hex. Socket	167-301	308	⅝" Hex. Socket	167-308
303	⅜" Square Shank	167-303	350	⅞" Hex. Chuck	167-350
304	1⅞" Hex. Socket	167-304			

Standard Voltage — 110; also available for 220 or 250 volts.

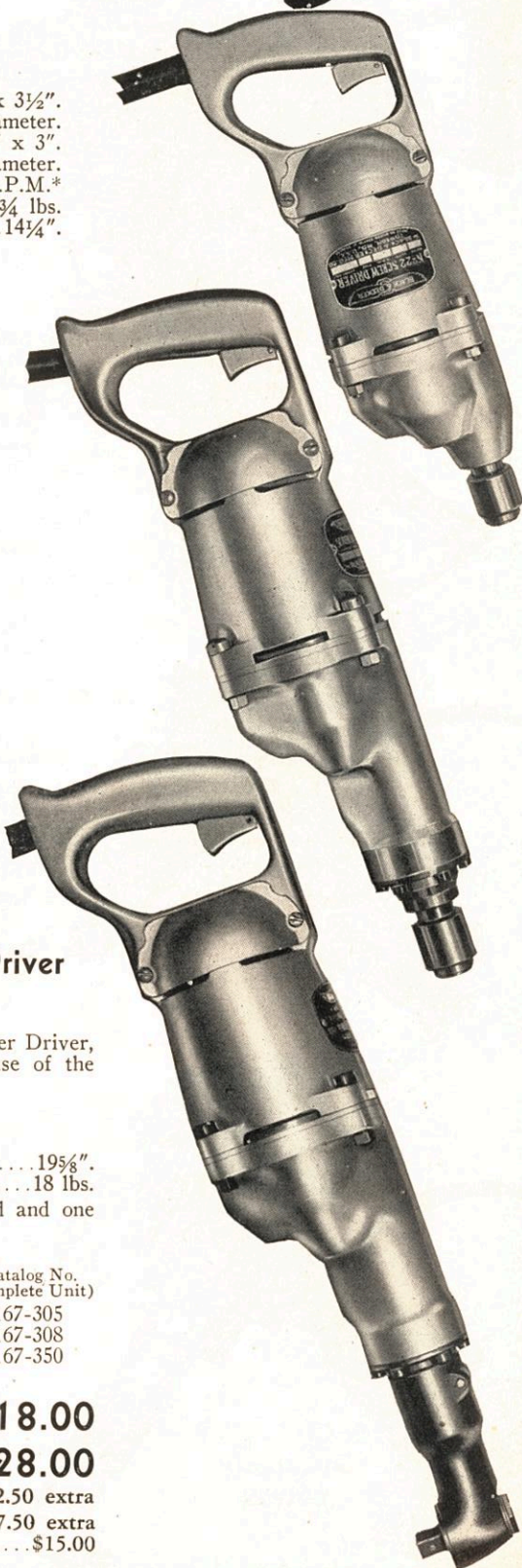
Price, with any one Head (except No. 305) **\$118.00**

with No. 305 Head **\$128.00**

*Special Speeds — 350 or 700 R.P.M. \$2.50 extra

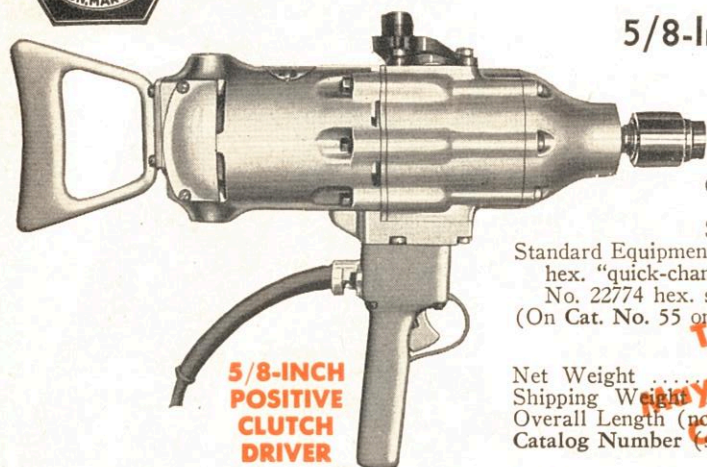
Reversing Switch for all No. 18 Drivers 7.50 extra

Cat. No. 22148 Bench Stand \$15.00





"ELECTRIC TOOL HEADQUARTERS"



**5/8-INCH
POSITIVE
CLUTCH
DRIVER**

5/8-Inch Positive Clutch Nut Runner

(Formerly No. 32 Power Driver)

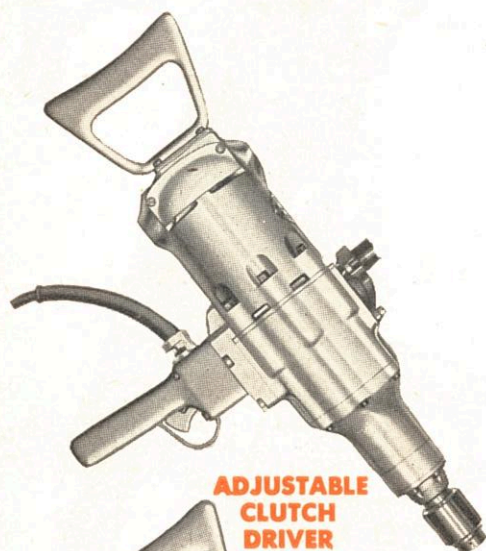
CATALOG Nos. 55, 392

Specifications

Capacity: Machine screws and nuts..... up to $\frac{5}{8}$ " diam.
Lag screws..... up to $\frac{3}{8}$ " x $4\frac{1}{2}$ " long.
Standard No-load speed..... 500 R.P.M.*
Standard Equipment—3-wire cable and plug; 20° positive pin pipe clutch; $\frac{5}{8}$ " hex. "quick-change" chuck; instant-release switch with locking pin; one No. 22774 hex. socket wrench ($\frac{5}{8}$ " a.f.) and shank; "universal" motor.
(On Cat. No. 55 only, spade handle and side pipe handle also standard.)

	Side Switch Handle	End Switch Handle
Net Weight	23 lbs.	21 $\frac{3}{4}$ lbs.
Shipping Weight	29 lbs.	28 lbs.
Overall Length (not including bit)...	20 $\frac{3}{8}$ "	20 $\frac{7}{8}$ "
Catalog Number (specify voltage)...	55	392

Price, complete **\$119.00** **\$119.00**
Special 13° or 30° clutch, instead of standard angle..... \$ 3.50 extra
Standard Voltage — 110; also available for 220 or 250 volts.



**ADJUSTABLE
CLUTCH
DRIVER**

5/8-Inch Adjustable Clutch Nut Runner

(Formerly No. 32 Power Driver)

CATALOG Nos. 352, 373

Specifications

Capacity and Standard Speed same as above.
Standard Equipment — 3-wire cable and plug; adjustable clutch; $\frac{5}{8}$ " hex. "quick-change" chuck; instant-release switch with locking pin; one No. 22774 hex. socket wrench ($\frac{5}{8}$ " a.f.) and shank; "universal" motor.
(On Cat. No. 352 only, spade handle and side pipe handle also standard.)

	Side Switch Handle	End Switch Handle
Net Weight	27 lbs.	25 $\frac{1}{2}$ lbs.
Shipping Weight	32 lbs.	31 lbs.
Overall Length (not includ. wrench)...	21 $\frac{3}{8}$ "	21 $\frac{3}{4}$ "
Catalog Number (specify voltage)...	352	373

Price, complete **\$138.00** **\$138.00**
Standard Voltage — 110; also available for 220 or 250 volts.



**90°-ANGLE
DRIVER**

5/8-Inch 90°-Angle Adjustable Clutch Nut Runner

(Formerly No. 32 Power Driver)

CATALOG Nos. 248, 182

Specifications

Capacity and Standard Speed same as above.
Weight: Net 28 $\frac{1}{2}$ lbs.
Shipping 38 lbs.
Overall Length 24 $\frac{1}{2}$ ".
Standard Equipment — 3-conductor cable and plug; special geared end with adjustable clutch and one of the right-angle heads listed below; spade handle; side switch handle and pipe handle; "universal" motor.
Optional Equipment — End switch handle can be supplied if desired, no extra charge.
Standard Voltage — 110; also available for 220 or 250 volts.
Available Right-Angle Heads and Catalog Numbers:

Catalog Numbers			Catalog Numbers		
Head (Part No.)	With Side Switch Handle	With End Switch Handle	Head (Part No.)	With Side Switch Handle	With End Switch Handle
400	248-400	182-400	451	248-451	182-451
450	248-450	182-450	452	248-452	182-452

Price, (specify voltage) with any one of above Heads... **\$178.00**

*Special Speeds (for all units)—350, 700 or 900 R.P.M. \$ 5.00 extra
Reversing Switch for all $\frac{5}{8}$ " Nut Runners..... 10.00 extra



"ELECTRIC TOOL HEADQUARTERS"

Black & Decker

7/8-Inch Positive Clutch Nut Runner

(Formerly No. 42 Power Driver)

CATALOG No. 56

Specifications

Capacity:

Lag screws up to $\frac{1}{2}$ " x $5\frac{1}{2}$ " long.
Machine screws and nuts up to $\frac{7}{8}$ " diam.
Standard No-load speed 500 R.P.M.*
Weight: Net 35 lbs.; Shipping 43 lbs.
Overall length (not including wrench) $21\frac{3}{4}$ "
Standard Equipment—3-wire cable and plug;
20° positive clutch; "quick-change" chuck
($\frac{5}{8}$ " hex.); side switch handle with safety switch; spade handle; side pipe
handle; one No. 22782 hex. socket wrench ($\frac{7}{8}$ " a.f.) and shank; "universal"
motor.

Standard Voltage—110; also available for 220 or 250 volts.

Catalog No. 56 (specify voltage)

Price, complete **\$149.00**

Special 13° or 30° clutch, instead of standard angle \$ 3.50 extra



**7/8-INCH
POSITIVE
NUT-RUNNER**

7/8-Inch Adjustable Clutch Nut Runner

(Formerly No. 42 Power Drive)

CATALOG No. 353

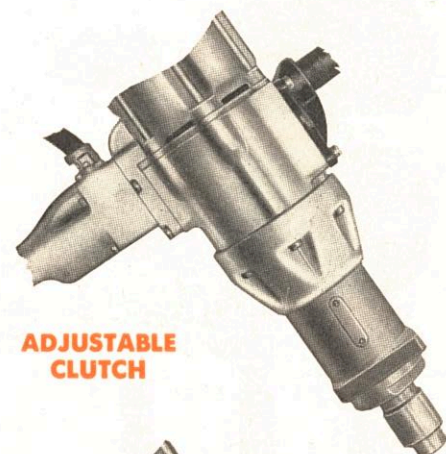
Specifications

Capacity: Machine screws and nuts up to $\frac{7}{8}$ " diam.
Lag screws up to $\frac{1}{2}$ " x $5\frac{1}{2}$ " long.
Standard No-load speed 500 R.P.M.*
Weight: Net 47½ lbs.; Shipping 57 lbs.
Overall length (not including wrench) $26\frac{3}{4}$ "
Standard Equipment—3-wire cable and plug; adjustable clutch; "quick-
change" chuck ($\frac{5}{8}$ " hex.); side switch handle with instant-release safety
switch; spade handle; side pipe handle; one No. 22782 hex. socket wrench
($\frac{7}{8}$ " a.f.) and shank; "universal" motor.

Standard Voltage—110; also available for 220 or 250 volts.

Catalog No. 353 (specify voltage)

Price, complete **\$178.00**



**ADJUSTABLE
CLUTCH**

7/8-Inch 90°-Angle Adjustable Clutch Nut Runner

(Formerly No. 42 Power Driver)

CATALOG Nos. 185, 252

Specifications

Capacity: Machine screws and nuts up to $\frac{7}{8}$ " diam.
Standard No-load speed 500 R.P.M.*
Weight: Net 52½ lbs.; Shipping 65 lbs.
Overall length $28\frac{3}{4}$ "
Standard Equipment—3-conductor cable and plug; special geared end with
adjustable clutch and one of the right-angle heads listed below; spade
handle, side switch handle and pipe handle; "universal" motor.

Optional Equipment—End switch handle can be supplied if desired, no
extra charge.

Standard Voltage—110; also available for 220 or 250 volts.

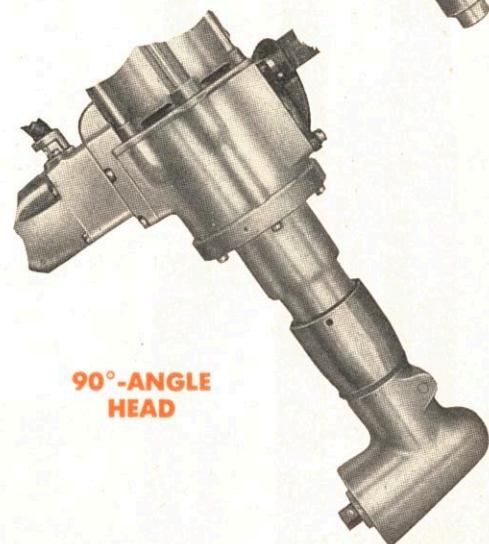
Right Angle Head Specifications

Head (Part No.)	Description	Catalog Numbers		Price Complete Specify Voltage
		With Side Switch Handle	With End Switch Handle	
501	$\frac{5}{8}$ " square shank†	185-501	252-501	\$228.00
505	$\frac{3}{4}$ " square shank†	185-505	252-505	\$248.00

† These shanks fit Blackhawk or Snap-on Sockets.

*Special speeds—for all $\frac{7}{8}$ " Nut Runners—350, 700 or
900 R.P.M. \$5.00 extra

Reversing switch—for all $\frac{7}{8}$ " Nut Runners.... 10.00 extra



**90°-ANGLE
HEAD**



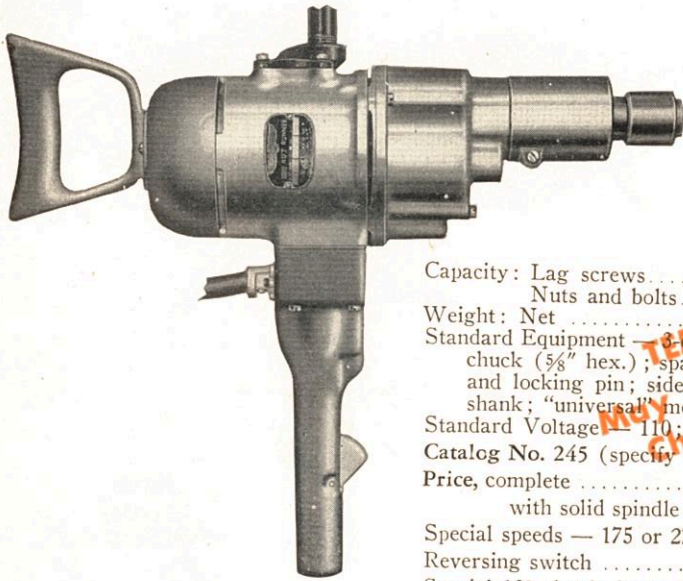


"ELECTRIC TOOL HEADQUARTERS"

1-Inch Positive Clutch Nut Runner

(Formerly No. 43 Power Driver)

CATALOG No. 245



A LOW-SPEED tool with high torque. This unit can be supplied with solid spindle and $\frac{3}{4}$ " Jacobs geared chuck, for slow speed drilling and reaming.

Specifications

Capacity: Lag screws... up to $\frac{3}{4}$ " x 6" long. Nuts and bolts... up to 1" diameter. Speed: No-load... 90 R.P.M. Overall length... 22 $\frac{3}{4}$ ". Weight: Net... 30 $\frac{3}{4}$ lbs. Shipping... 39 $\frac{3}{4}$ lbs. Standard Equipment — 3-conductor cable and plug; 20° positive clutch; "quick-change" chuck ($\frac{5}{8}$ " hex.); spade handle; side switch handle with automatic-release switch and locking pin; side pipe handle; one No. 22782 socket wrench ($\frac{7}{8}$ " a.f.) and shank; "universal" motor. Standard Voltage — 110; also available for 220 or 250 volts.

Catalog No. 245 (specify voltage)

Price, complete... **\$149.00**
with solid spindle and $\frac{3}{4}$ " chuck for drilling... \$164.00
Special speeds — 175 or 275 R.P.M. \$ 5.00 extra
Reversing switch 10.00 extra
Special 13° clutch, instead of standard \$3.50 extra

Socket Wrenches

COMPLETE RANGE of sizes, for use on all Screw Drivers and Nut Runners. Sockets are interchangeable on separable drive-shanks. Shank sizes fit Drivers as follows:

- $\frac{1}{4}$ " Hexagon Shank — for Torsimeters and Scruguns.
- $\frac{7}{16}$ " Hexagon Shank — for Nos. 14 and 18 Drivers.
- $\frac{5}{8}$ " Hexagon Shank — for $\frac{5}{8}$ ", $\frac{7}{8}$ " and 1" Drivers.

"Socket size" indicates opening to fit nut or bolt to be driven; available in hexagon or double-square openings. "Drive opening" in socket fits corresponding "drive square" on shank; match these sizes when ordering.

Sockets

Socket Size	Drive Opening	Cat. No. Hexagon Socket	Price Each	Cat. No. Double-Square	Price Each
$\frac{1}{4}$ "	$\frac{1}{4}$ "	20512	\$0.70	20519	\$0.85
$\frac{7}{16}$ "	$\frac{1}{4}$ "	20513	.70		
$\frac{1}{2}$ "	$\frac{1}{4}$ "	20514	.70	20520	.85
$\frac{9}{16}$ "	$\frac{1}{4}$ "	20515	.70	20521	.85
$\frac{5}{8}$ "	$\frac{1}{4}$ "	20516	.70	20522	.85
$\frac{11}{16}$ "	$\frac{1}{4}$ "	20517	.70	20546	.85
$\frac{3}{4}$ "	$\frac{1}{4}$ "	20518	.75	22915	.90
$\frac{7}{8}$ "	$\frac{1}{4}$ "	22917	.80	22916	.95
$\frac{1}{4}$ "	$\frac{3}{8}$ "	22762	.75	22763	1.00
$\frac{5}{16}$ "	$\frac{3}{8}$ "	22764	.75	22765	1.00
$\frac{3}{8}$ "	$\frac{1}{2}$ "	22766	.75	22767	1.00
$\frac{7}{16}$ "	$\frac{1}{2}$ "	22768	.75	22769	1.00
$\frac{1}{2}$ "	$\frac{1}{2}$ "	22770	.75	22771	1.00
$\frac{9}{16}$ "	$\frac{1}{2}$ "	22772	.75	22773	1.00
$\frac{5}{8}$ "	$\frac{1}{2}$ "	22774	.75	22775	1.00
$\frac{11}{16}$ "	$\frac{1}{2}$ "	22776	.75	22777	1.00
$\frac{3}{4}$ "	$\frac{1}{2}$ "	22778	1.00	22779	1.30
$\frac{7}{8}$ "	$\frac{1}{2}$ "	22780	1.00	22781	1.30
$\frac{15}{16}$ "	$\frac{1}{2}$ "	22782	1.00	22783	1.50
$\frac{15}{16}$ "	$\frac{1}{2}$ "	22784	1.25	22785	1.60
1"	$\frac{1}{2}$ "	22786	1.35	22787	1.75
$\frac{11}{16}$ "	$\frac{5}{8}$ "	22788	2.00	22789	2.50
$\frac{13}{16}$ "	$\frac{5}{8}$ "	22790	2.25	22791	2.75
$\frac{15}{16}$ "	$\frac{5}{8}$ "	23298	3.50	23297	5.50
$\frac{13}{16}$ "	$\frac{5}{8}$ "	23300	3.50	23299	5.50
$\frac{15}{16}$ "	$\frac{5}{8}$ "	23302	4.00	23301	6.00
$\frac{13}{16}$ "	$\frac{5}{8}$ "	23304	4.50	23303	6.50
$\frac{15}{16}$ "	$\frac{5}{8}$ "	23306	5.00	23305	7.00
$\frac{13}{16}$ "	$\frac{5}{8}$ "	23308	5.00	23307	7.00
$\frac{15}{16}$ "	$\frac{5}{8}$ "	25943	5.50	.....	.....

Shanks

Shank Size	Drive Square Size	Overall Length	Cat. No.	Price Each
$\frac{1}{4}$ "	$\frac{1}{4}$ "	2"	20510	\$1.00
$\frac{1}{4}$ "	$\frac{1}{4}$ "	6"	20511	1.50
$\frac{7}{16}$ "	$\frac{3}{8}$ "	2 $\frac{3}{4}$ "	22792	1.50
$\frac{7}{16}$ "	$\frac{3}{8}$ "	5"	22793	1.85
$\frac{7}{16}$ "	$\frac{1}{2}$ "	2 $\frac{3}{4}$ "	22794	2.00
$\frac{7}{16}$ "	$\frac{1}{2}$ "	5"	22795	2.25
$\frac{5}{8}$ "	$\frac{1}{2}$ "	3"	22796	2.25
$\frac{5}{8}$ "	$\frac{1}{2}$ "	5"	22797	2.50
$\frac{5}{8}$ "	$\frac{5}{8}$ "	3"	22798	2.75
$\frac{5}{8}$ "	$\frac{5}{8}$ "	5"	22799	3.00

ADAPTORS Used to adapt larger size sockets to smaller size shanks. "Male" is drive-square to fit drive opening of socket; "Female" is drive opening to fit drive-square of shank.

No. 22800 $\frac{3}{4}$ " Male; $\frac{1}{2}$ " Female... \$3.50
No. 22801 $\frac{5}{8}$ " Male; $\frac{1}{2}$ " Female... 3.00
No. 22802 $\frac{1}{2}$ " Male; $\frac{3}{8}$ " Female... 2.65
No. 22803 $\frac{1}{2}$ " Male; $\frac{1}{4}$ " Female... 2.65

"ELECTRIC TOOL HEADQUARTERS"

Black & Decker

Right-Angle Head Specifications

AVAILABLE Heads for Right Angle Screw Drivers and Nut Runners, as shown on preceding pages, are listed below. The following specifications are indicated: first group — size of built-in socket (for direct use on nut tightening) and dimensions of clearance hole behind socket; second group — size of "drive square" shank, to which various size sockets may be fitted; third group — size of built-in screw driver bit or socket to take bit-shank.

Head Part No.	Hexagon-Socket Size Across Flats	Clearance Hole		Head Part No.	Size of † Square Shank
		Diam.	Depth		
100	$\frac{3}{8}$ "	$\frac{1}{4}$ "	$\frac{11}{16}$ "	103	$\frac{3}{8}$ "
101	$\frac{7}{16}$ "	$\frac{1}{4}$ "	$\frac{11}{16}$ "	105	$\frac{1}{4}$ "
102	$\frac{7}{16}$ "**	$\frac{1}{4}$ "	$\frac{11}{16}$ "	300	$\frac{1}{2}$ "
104	$\frac{7}{16}$ "	$\frac{1}{4}$ "	$\frac{11}{16}$ "	303	$\frac{3}{8}$ "
106	$\frac{3}{8}$ "	$\frac{1}{4}$ "	$\frac{11}{16}$ "	305	$\frac{1}{2}$ "**
107	$\frac{11}{32}$ "	$\frac{3}{16}$ "	$\frac{11}{16}$ "	400	$\frac{1}{2}$ "
108	$\frac{11}{32}$ "	$\frac{3}{16}$ "	$\frac{11}{16}$ "	501	$\frac{5}{8}$ "
				505	$\frac{3}{4}$ "**
301	$\frac{1}{2}$ "	$\frac{1}{2}$ "	$\frac{7}{8}$ "	Screw Driver Bit Size	
304	$\frac{19}{32}$ "	$\frac{1}{2}$ "	$\frac{11}{16}$ "		
308	$\frac{5}{8}$ "	$\frac{1}{2}$ "	1"	150	No. 4
				151	No. 6 & No. 8
450	$\frac{3}{4}$ "	$\frac{17}{16}$ "	$\frac{119}{64}$ "	152	No. 10
451	$\frac{5}{8}$ "	$\frac{7}{16}$ "	$\frac{13}{16}$ "	156	No. 6 & No. 8**
452	$\frac{3}{16}$ "	$\frac{7}{16}$ "	$\frac{13}{16}$ "	350	$\frac{1}{16}$ " Hex. Chuck

* Square Socket, instead of Hexagon.

** This Head equipped with dead spindle.

† Shank to fit Blackhawk and Snap-On type Sockets.

Screw Driver Bits for Phillips Head Screws

(For Scrugun, Torsimeter, Nos. 14 and 18 Screw Drivers)

A SPECIAL bit is required for driving the Phillips Head Screw, which has a cross form slot instead of the conventional slot and four different slot sizes designated as Nos. 1, 2, 3 and 4. Several screw sizes are covered by one slot size; see Table No. 1. Bits available for Black & Decker Screw Drivers are listed in Table No. 2.

Table No. 1

Type of Screw	Slot No. 1	Slot No. 2	Slot No. 3	Slot No. 4
Wood Screws	Flat and Oval Head	No. 4 and Smaller	No. 5 to No. 9	No. 10 to No. 16
	Round Head	No. 4 and Smaller	No. 5 to No. 10	No. 11 to No. 16
Stove Bolts	Flat, Oval and Oven Head	....	$\frac{5}{16}$ " and $\frac{3}{16}$ "	$\frac{1}{4}$ "
	Round Head	....	$\frac{5}{16}$ " and $\frac{3}{16}$ "	$\frac{1}{4}$ " and $\frac{5}{16}$ "
Machine Screws	Flat, Oval and Binding Head	No. 4 and Smaller	No. 5 to No. 10	No. 12 and $\frac{1}{4}$ "
	Round and Fillister Head	No. 4 and Smaller	No. 5 to No. 10	No. 12 to $\frac{5}{16}$ "
	Truss Head	No. 5 and Smaller	No. 6 to No. 10	No. 12 and $\frac{1}{4}$ "
Sheet Metal Screws	Flat, Round Oval, Binding and Stove Head	No. 4 and Smaller	No. 5 to No. 10	No. 12 and No. 14

Table No. 2

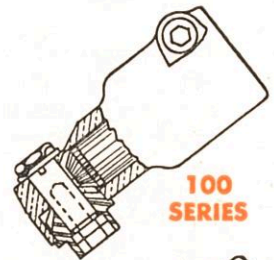
Slot Size	Cat. No.	Unit Used With	Price Each	Price Each			
				Box of 6*	$\frac{1}{2}$ Gross Lot*	One Gross Lot*	Four Gross Lot*
No. 1 { $\frac{1}{4}$ " hex. shank}	17922	Torsimeter and Scrugun	\$0.70	\$0.65	\$0.55	\$0.48	\$0.42
No. 1 { $\frac{1}{16}$ " hex. shank}	18938	Nos. 14 and 18 S. D.	.90	.85	.75	.70	.65
No. 2 { $\frac{1}{4}$ " hex. shank}	17923	Torsimeter and Scrugun	.70	.65	.55	.48	.42
No. 2 { $\frac{1}{16}$ " hex. shank}	17924	Nos. 14 and 18 S. D.	.90	.85	.75	.70	.65
No. 3 { $\frac{1}{4}$ " hex. shank}	21356	Torsimeter and Scrugun	.70	.65	.55	.48	.42
No. 3 { $\frac{1}{16}$ " hex. shank}	17925	Nos. 14 and 18 S. D.	.90	.85	.75	.70	.65
No. 4 { $\frac{1}{16}$ " hex. shank}	17926	Nos. 14 and 18 S. D.	.90	.85	.75	.70	.65

* Quantity prices apply only on designated quantities of one size.

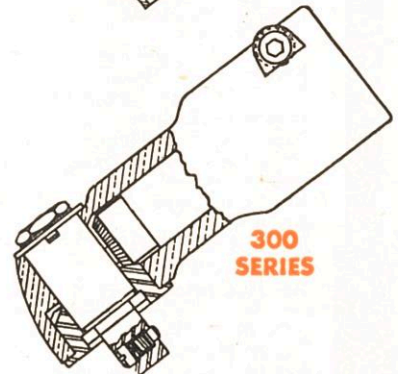
$\frac{1}{4}$ " hex. shank bits have a projecting length (from chuck to bit end) of $1\frac{1}{8}$ ".

$\frac{1}{16}$ " hex. shank bits have a projecting length (from chuck to bit end) of $2\frac{1}{2}$ ".

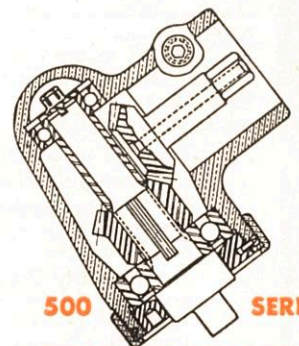
Standard and Hex. Socket Bits are listed on next page.



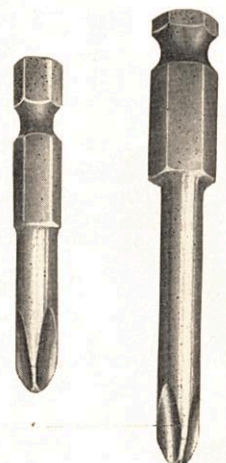
100
SERIES



300
SERIES



500
SERIES
RIGHT-ANGLE HEADS



PHILLIPS HEAD BITS



"ELECTRIC TOOL HEADQUARTERS"

Standard Screw-Driver Bits With 1/4" Hex Shanks—For Torsimeters and Scruguns

For use with these Screw Types and Sizes	Bit Length *	Bit and Stan'd. Finder Assem. No. (C)	** Price Each	Bit Only No. (B)	** Price Each	Stand- ard Finder No.	Price Each	Special Blank Finder No.	Price Each
Nos. 2, 3 Wood	1 1/4"			18051	\$0.70	18050†	\$0.45	24475	\$0.35
No. 2 Machine (except Filister)	2 3/4"			22396	.90	20482†	.45	24478	.35
No. 3 Machine						22397†	.70	24476	.45
No. 2 Sheet Metal						23979†	.70	24477	.45
No. 4 Filister									
Nos. 4, 5, 6, 7 Wood	1 1/4"			13208	.70	13210†	.45	24479	.35
No. 4 Machine (except Filister)	2 3/4"	17690	\$1.40	17688	.90	15588†	.45	24480	.35
Nos. 5, 6 Machine	5 1/4"	22111	1.50	22108	1.00	5103	.45	24466	.35
Nos. 4, 5 Sheet Metal						5103	.45	24466	.35
No. 6 Sheet Metal (except Stove)									
Nos. 8, 9 Wood	1 1/4"			13207	.70	13209†	.45	24481	.35
No. 6 Stove	2 3/4"	13356	1.40	13353	.90	16529†	.45	24482	.35
No. 7, 8 Sheet Metal	5 1/4"	13469	1.50	13470	1.00	5105	.45	24467	.35
No. 8 Machine						5105	.45	24467	.35
No. 10 Filister									
Nos. 10, 11 Wood	1 1/4"			15475	.70	15469†	.45	24483	.35
No. 10 Sheet Metal	2 3/4"			23494	.90	23493†	.70	24484	.45
No. 10 Machine (except Filister)	2 3/4"	18593	1.40	18594	.90	5107†	.45	24468	.35
No. 12 Filister									
No. 12 Wood	1 1/4"			16772	.70	16773†	.45	24485	.35
No. 12 Sheet Metal	2 3/4"	21731	1.40	21730	.90	5109†	.45	24469	.35
No. 12 Machine (except Filister)									
1/4" Filister									

† Used with Scrugun only.

‡ Used with Torsimeter and 90° heads.

* All lengths shown are the projecting lengths, from chuck to end of bit; they do not indicate overall lengths.

**Quantity Prices—All Standard Bits and Bit-and-Finder Assemblies in this group are packed and stocked in boxes of six. We recommend ordering in standard packages or multiples thereof and offer special quantity prices which apply on designated quantities, all of one size only.

Price, Each

One	In Box of Six	In 1/2-Gross Lot	In 1-Gross Lot	In 4-Gross Lot
\$0.70	\$0.50	\$0.45	\$0.40	\$0.35
.90	.65	.60	.55	.45
1.00	.70	.65	.60	.50
1.40	.95	.85	.80	.65
1.50	1.05	.95	.85	.70

Protecting Sleeves (D)

Used on Torsimeters and Scruguns, when Bits are used without Finders.

No. 19178 Protecting Sleeve for No. 4 Torsimeter..... \$0.65
No. 13201 Protecting Sleeve for Scrugun..... .65

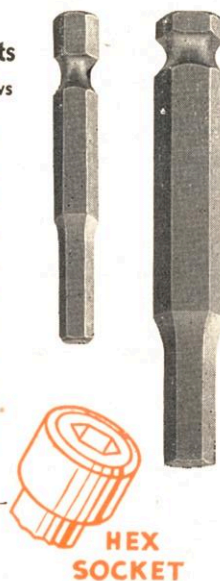
Bit Extensions (A)

Screw Driver Bit Extensions are available in various lengths, with 1/4" or 7/16" shank to fit Torsimeter, Scrugun or Screw Driver Chuck, and a chuck socket to take standard bits and socket wrenches. These Extensions greatly reduce bit replacement costs, where long bits are needed.

Cat. No.	Length	Shank Size	Price Each
22581	4"	1/4"	\$1.45
22539	6"	1/4"	1.45
22540	8"	1/4"	1.50
22323	10"	1/4"	1.50
15023	4"	7/16"	1.30
14989	6"	7/16"	1.45
5287	8"	7/16"	1.55
5288	10"	7/16"	1.70

Special Hex. Drive Bits for Hollow Head Cap Screws

This special type of screw has a driving recess consisting of a hexagon-shaped socket requiring a bit with a hexagon driving end. We can supply correct bits for driving these special screws in both the 1/4" hex. shank and 7/16" hex. shank size. Thus these bits are adapted to all Drivers from the Torsimeter to the No. 18.



Cat. No.	Diam. Across Flat on Driving End of Bit	Ex-tension of Bit	Size Screws with which Bit is Used			
			Cap Screws	Set Screws	Pipe Plugs	Price Each
18577	1/8"	1 1/4"	# 8	1/4"	...	\$2.30
18578	5/16"	1 1/4"	# 10 & # 12	5/16"	...	2.30
18579	3/8"	1 1/4"	1/4"	3/8"	1 1/2"	2.30
17892	3/16"	2"	1/4"	3/8"	1/8"	\$2.85
19223	1/8"	2"	5/16"	7/16"	...	2.85
26842	1/4"	2"	1/2"	Allen	1/4"	2.85
18977	3/8"	2"	3/8" and 7/16"	5/8"	3/8"	2.85
23492	3/8"	2"	1/2" and 5/16"	3/4"	1/2"	2.85

"ELECTRIC TOOL HEADQUARTERS"

Standard Screw-Driver Bits
with 7/16" Hex. Shanks—for No. 14 and No. 18 Drivers

Black & Decker

For use with these Screw Types and Sizes	Bit Length *	Bit and Stan'd. Finder Assem. No. (F)	Price Each	Bit Only No. (E)	Price Each	Stand- ard Finder No.	Price Each	Special Blank Finder No.	Price Each
Nos. 4, 5, 6, 7 Wood No. 4 Machine (except Filister)	2 1/2"	5345	\$1.45	5104	\$.95	5103	\$0.45	24466	\$0.35
Nos. 5, 6 Machine	4"	15085	1.65	15049	1.15				
Nos. 4, 5 Sheet Metal	6"	15086	1.75	15050	1.25				
No. 6 Sheet Metal (except Stove)	8"	15087	1.85	15051	1.35				
	10"	15088	1.95	15052	1.45				
Nos. 8, 9 Wood No. 6 Stove	2 1/2"	5346	1.45**	5106	.95**	5105	.45	24467	.35
No. 7, 8 Sheet Metal	4"	15089	1.65**	15053	1.15**				
No. 8 Machine	6"	15090	1.75**	15054	1.25**				
No. 10 Filister	8"	15091	1.85**	15055	1.35**				
	10"	15092	1.95**	15056	1.45**				
No. 10, 11 Wood No. 10 Sheet Metal	2 1/2"	5330	1.45**	5108	.95**	5107	.45	24468	.35
No. 10 Machine (except Filister)	4"	15093	1.65**	15057	1.15**				
No. 12 Filister	6"	15094	1.75**	15058	1.25**				
	8"	15095	1.85**	15059	1.35**				
	10"	15096	1.95**	15060	1.45**				
No. 12 Wood No. 12 Sheet Metal	2 1/2"	5343	1.45**	5110	.95**	5109	.45	24469	.35
No. 12 Machine (except Filister)	4"	15097	1.65**	15061	1.15**				
1/4" Filister	6"	15098	1.75**	15062	1.25**				
	8"	15099	1.85**	15063	1.35**				
	10"	15100	1.95**	15064	1.45**				
No. 14 Wood No. 14 Sheet Metal	2 1/2"	5344	1.45**	5112	.95**	5111	.45	24470	.35
1/4" Machine (except Filister)	4"	15101	1.65**	15065	1.15**				
	6"	15102	1.75**	15066	1.25**				
	8"	15103	1.85**	15067	1.35**				
	10"	15104	1.95**	15068	1.45**				
No. 16 Wood } 5/16" Filister }	2 1/2"	5329	1.45**	5114	.95**	5113	.45	24471	.35
	4"	15105	1.65**	15069	1.15**				
	6"	15106	1.75**	15070	1.25**				
	8"	15107	1.85**	15071	1.35**				
	10"	15108	1.95**	15072	1.45**				
No. 18 Wood } 5/16" Sheet Metal }	2 5/8"	5364	1.45	5116	.95	5115	.45	24472	.35
	4"	15109	1.65	15073	1.15				
	6"	15110	1.75	15074	1.25				
	8"	15111	1.85	15075	1.35				
	10"	15112	1.95	15076	1.45				
5/16" Machine (except Filister) } No. 20 Wood }	2 3/4"	5366	1.45	5118	.95	5117	.45	24473	.35
3/8" Filister }	4"	15113	1.65	15077	1.15				
	6"	15114	1.75	15078	1.25				
	8"	15115	1.85	15079	1.35				
	10"	15116	1.95	15080	1.45				
No. 24 Wood } 3/8" Machine (except Filister) }	2 3/4"	5369	1.45	5120	.95	5119	.45	24474	.35
	4"	15117	1.65	15081	1.15				
	6"	15118	1.75	15082	1.25				
	8"	15119	1.85	15083	1.35				
	10"	15120	1.95	15084	1.45				

* All lengths shown are the projecting lengths, from chuck to end of bit; they do not indicate overall lengths.

** Quantity Prices—Standard Bits and Bit-and-Finder Assemblies in this group, when marked thus (**), are packed and stocked in boxes of six. We recommend ordering in standard packages or multiples thereof and offer special quantity prices which apply on designated quantities, all of one size only.

Bit Only, Without Finder

Price Each	In Box of Six, Each	1/2-Gross Lot, Each	One-Gross Lot, Each	Four-Gross Lot, Each
\$0.95	\$0.65	\$0.60	\$0.55	\$0.45
1.15	.80	.70	.65	.55
1.25	.85	.80	.70	.60
1.35	.95	.85	.80	.65
1.45	1.00	.90	.85	.70

Bit-and-Finder Assembly

\$1.45	\$1.00	\$0.90	\$0.85	\$0.65
1.65	1.15	1.00	.95	.80
1.75	1.20	1.05	1.00	.85
1.85	1.30	1.15	1.05	.90
1.95	1.35	1.20	1.15	.95

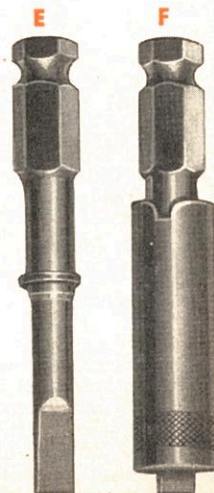
Adaptors

To use Screw Driver Bits and Socket Wrenches with 7/16" hex. shanks in the 5/8", 7/8" and 1" Nut Runners, an Adaptor is necessary to reduce the Chuck capacity from 5/8" to 7/16".

No. 24880 5/8" to 7/16" Bit Adaptor...\$3.25



SLOTTED HEAD





"ELECTRIC TOOL HEADQUARTERS"

Portable Electric Hammers

COMPLETELY self-contained, operated by "universal" motors, require no transformers or rectifiers. Positive motor drive, through reducing gears, develops hammer action by oscillating a weight and spring assembly. A definite "follow-through" stroke produces high efficiency.

Use to speed up any drilling or cutting operation requiring a hammer action; drill and channel in concrete, stone and brick; caulk joints and seams; remove scale and rust; tamp and vibrate concrete forms; gouge and chisel trees, timbers.

1/2-Inch Portable Electric Hammer

(Formerly No. 30 Hammer)

CATALOG No. 102

Operating Range*: Efficient... $\frac{3}{16}$ " to $\frac{1}{2}$ "; Extreme... $\frac{3}{16}$ " to $\frac{3}{4}$ ".
Blows Per Minute..... 2400. Overall Length... $12\frac{7}{8}$ ".
Weight: Net $5\frac{3}{4}$ lbs.; Shipping 15 lbs.
Standard Equipment — One No. 22587 chuck wrench; one dust shield; one No. 24024 ($\frac{1}{2}$ ") speed bit; 3-conductor cable and plug; rocker-type switch; tool retaining spring; drift key; carrying case and can of oil; "universal" motor.

Standard Voltage — 110; also available for 220 or 250 volts.

Catalog No. 102 (specify voltage)

Price, complete \$85.00

3/4-Inch Portable Electric Hammer

(Formerly No. 32 Hammer)

CATALOG No. 103

Operating Range*: Efficient..... $\frac{1}{4}$ " to $\frac{3}{4}$ "; Extreme... $\frac{3}{16}$ " to $1\frac{1}{8}$ ".
Blows Per Minute..... 2300. Overall Length... $14\frac{5}{8}$ ".
Weight: Net $10\frac{3}{4}$ lbs.; Shipping 22 lbs.
Standard Equipment — One No. 22587 chuck wrench; one dust shield; one No. 7162 ($\frac{5}{8}$ ") star drill; 3-conductor cable and plug; trigger switch; tool retaining spring; drift key; carrying case and can of oil; "universal" motor.

Standard Voltage — 110; also available for 220 or 250 volts.

Catalog No. 103 (specify voltage)

Price, complete \$115.00

1 1/8-Inch Portable Electric Hammer

(Formerly No. 34 Hammer)

CATALOG No. 104

Operating Range*: Efficient..... $\frac{3}{4}$ " to $1\frac{1}{8}$ "; Extreme... $\frac{3}{4}$ " to $1\frac{1}{2}$ ".
Blows Per Minute..... 2200. Overall Length... $18\frac{7}{8}$ ".
Weight: Net $19\frac{1}{4}$ lbs.; Shipping 31 lbs.
Standard Equipment — One No. 22754 chuck wrench; one dust shield; one No. 7096 (1") star drill; 3-conductor cable and plug; trigger switch; tool retaining spring; drift key; carrying case and can of oil; "universal" motor.

Standard Voltage — 110; also available for 220 or 250 volts.

Catalog No. 104 (specify voltage)

Price, complete \$145.00

* "Efficient Operating Range" (black circles) indicates maximum and minimum hole sizes in concrete, between which each Hammer does its most efficient work. "Extreme Operating Range" (orange circles) indicates the limits to which each Hammer can be used in emergency. If bits or drills below the Efficient Operating Range are used, there is danger of excessive bit breakage. If drills above the Efficient Operating Range are used, work will be noticeably slower and less satisfactory.



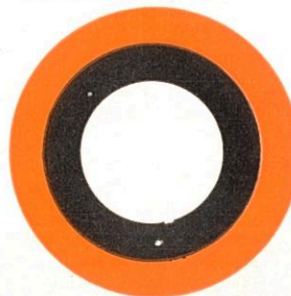
1/2-INCH
HAMMER



3/4-INCH
HAMMER

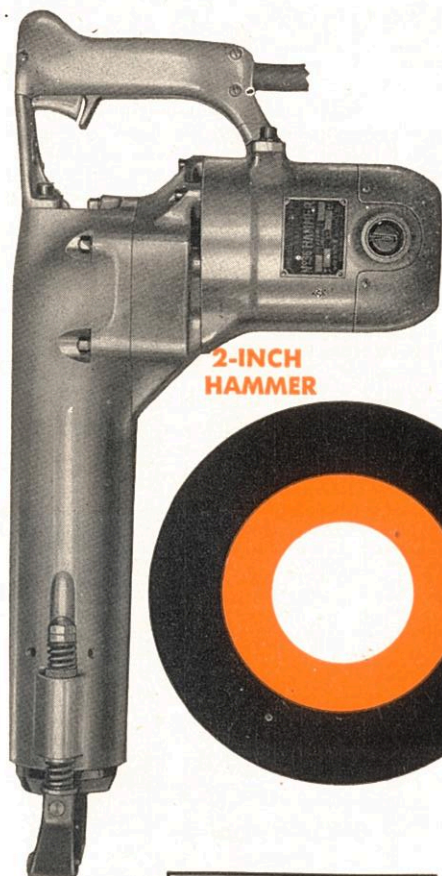


1 1/8-INCH
HAMMER

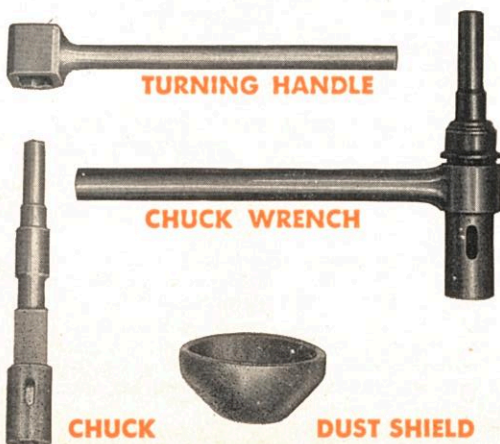
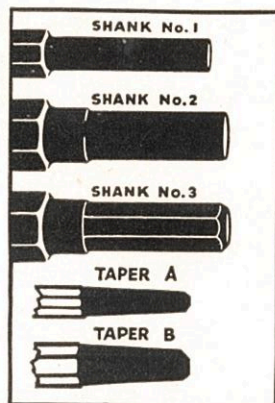


"ELECTRIC TOOL HEADQUARTERS"

Black & Decker



**2-INCH
HAMMER**



TURNING HANDLE

CHUCK WRENCH

CHUCK

DUST SHIELD

2-Inch Portable Electric Hammer

(Formerly No. 36 Hammer)

CATALOG No. 105

Operating Range*: Efficient... $1\frac{1}{4}$ " to 2"; Extreme... $\frac{3}{4}$ " to 2".
Blows Per Minute..... 1,950. Overall Length..... $20\frac{1}{4}$ ".
Weight: Net $29\frac{1}{4}$ lbs.; Shipping 44 lbs.
Standard Equipment: One No. 21726 turning handle; one No. 21946 ($1\frac{1}{2}$ " star drill; 3-conductor cable and plug; trigger switch; tool retaining yoke mounted on barrel; carrying case and can of oil; "universal" motor.
Standard Voltage: 110; also available for 220 or 250 volts.
Catalog No. 105 (specify voltage)

Price, complete **\$195.00**

* See "Operating Range" reference at bottom of Page 38.

Supplies

DRIFT KEY Used to remove taper shank bits from Chuck Wrench.
No. 7276 For all Chuck Wrenches..... \$.35

TOOL RETAINING SPRINGS To hold straight-shank tool in nose-piece of Hammer.

No. 10909 Tool Retaining Spring for $\frac{1}{2}$ " and $\frac{3}{4}$ " Hammers..... .15
No. 21750 Tool Retaining Spring for $1\frac{1}{8}$ " Hammer..... .15

DUST SHIELDS Used in overhead drilling to keep dust out of Hammer nose and mechanism.

No. 17746 For Wrenches Nos. 22587, 23806, 22510..... .35
No. 17747 For Wrenches Nos. 22749, 22754..... .35

CARRYING CASES Ample space for Hammer, Wrenches and full assortment of tools.

No. 18296 Carrying Case for $\frac{1}{2}$ " Hammer..... 7.75
No. 18389 Carrying Case for $\frac{3}{4}$ " Hammer..... 9.00
No. 21003 Carrying Case for $1\frac{1}{8}$ " Hammer..... 10.00
No. 18679 Carrying Case for 2" Hammer..... 12.50

SPECIAL HAMMER LUBRICATING OIL For all Hammers.

No. 22926 3-Oz. Container..... .25
No. 22930 Pint Container..... .50
No. 22931 Quart Container..... .85
No. 22932 Gallon Container..... 2.50

Shanks and Tapers

To make it easy to identify shanks and tapers for chuck wrenches and tools, we have established the following standards:

SHANK No. 1—Straight, round shank $2\frac{1}{4}$ " long, fits the nose piece of $\frac{1}{2}$ " and $\frac{3}{4}$ " Hammers. Used on Chuck Wrenches Nos. 22587, 23806, and on tools that fit directly into these Hammers.

SHANK No. 2—Straight, round shank $2\frac{1}{2}$ " long, fits the nose piece of $1\frac{1}{8}$ " and 2" Hammers. Used on Chuck Wrenches Nos. 22749, 22754, Chuck No. 22510 and on tools which must turn freely in the nose piece.

SHANK No. 3—Straight, hexagonal shank $2\frac{1}{2}$ " long, fits the nose piece of $1\frac{1}{8}$ " and 2" Hammers. Used on hammer tools which do not rotate in the Hammer nose piece.

TAPER "A"—Tapered shank on all star drills, speed-bits and diamond points in diameters up to $\frac{3}{4}$ " inclusive, fitting chuck wrenches Nos. 22587 and 22749.

TAPER "B"—Tapered shank on all star drills in diameters $\frac{3}{4}$ " to $1\frac{1}{8}$ " inclusive, fitting chuck wrenches Nos. 23806, 22754 and Chuck No. 22510.

Chuck Wrenches and Turning Handles

Cat. No.	Item	For Drill Sizes	Shank No.	Taper Socket	Use with Hammer	Price Each
22587	Chuck Wrench	up to $\frac{3}{4}$ "	1	A	$\frac{1}{2}$ " & $\frac{3}{4}$ "	\$4.35
23806	Chuck Wrench	$1\frac{1}{16}$ " and Over	1	B	$\frac{3}{4}$ "	4.35
22749	Chuck Wrench	up to $\frac{3}{4}$ "	2	A	$1\frac{1}{8}$ "	4.85
22754	Chuck Wrench	$1\frac{1}{16}$ " to $1\frac{1}{8}$ "	2	B	$1\frac{1}{8}$ "	5.75
22510	Chuck Only	$1\frac{1}{16}$ " to $1\frac{1}{8}$ "	2	B	2"	5.00
21726	Turning Handle	Over $1\frac{1}{8}$"*	..	..	2"	2.30

* Star Drills $1\frac{1}{4}$ " and up are made with No. 2 Shank to fit directly into nose piece of 2" Hammer. Just below the shank is a square that accommodates the No. 21726 Turning Handle.



"ELECTRIC TOOL HEADQUARTERS"

Speed Bits (Fig. A)

Cut small holes in hard material at higher speed than Star Drills or Diamond Points. Easily and quickly sharpened. Used with Chuck Wrench No. 22587 in $\frac{1}{2}$ " or $\frac{3}{4}$ " Hammer.

Cat. No.	Point Diam.	Overall Length	Price Per Doz.*	Cat. No.	Point Diam.	Overall Length	Price Per Doz.*
23453	$\frac{3}{16}$ "	3"	\$5.40	11367	$\frac{1}{8}$ "	9"	\$7.20
11363	$\frac{1}{4}$ "	3 $\frac{1}{2}$ "	5.40	24025	$\frac{1}{16}$ "	5"	7.20
11364	$\frac{5}{16}$ "	3 $\frac{3}{4}$ "	6.00	11368	$\frac{9}{16}$ "	9"	7.80
11365	$\frac{3}{8}$ "	4"	6.00	24026	$\frac{5}{8}$ "	5"	7.20
11366	$\frac{7}{16}$ "	4 $\frac{1}{2}$ "	6.60	11369	$\frac{5}{8}$ "	9"	7.80
24024	$\frac{1}{2}$ "	5"	6.60				

* Priced in dozen lots only. Packaged six bits to a carton.

Star Drills (Figs. B and C)

Cat. No.	Point Diam.	Overall Length	Shank	Price Each**	Use Chuck Wrench or Turning Handle			
					For $\frac{1}{2}$ " Hammer	For $\frac{3}{4}$ " Hammer	For 1 $\frac{1}{2}$ " Hammer	For 2" Hammer
7167	$\frac{1}{4}$ "	5"	A	\$0.60	22587	22587	22749†	.....
7168	$\frac{5}{16}$ "	5"	A	.65	22587	22587	22749†	.....
7169	$\frac{3}{8}$ "	5"	A	.65	22587	22587	22749†	.....
7169	$\frac{1}{2}$ "	5"	A	.70	22587	22587	22749†	.....
7161	$\frac{1}{2}$ "	9"	A	.70	22587	22587	22749†	.....
9364	$\frac{1}{2}$ "	18"	A	.95	22587*	22587	22749†	.....
7170	$\frac{5}{16}$ "	9"	A	.75	22587*	22587	22749†	.....
7162	$\frac{3}{8}$ "	9"	A	.75	22587*	22587	22749†	.....
9372	$\frac{5}{16}$ "	18"	A	1.00	22587*	22587	22749†	.....
7171	$\frac{1}{16}$ "	9"	A	.80	22587*	22587	22749†	.....
24673	$\frac{1}{16}$ "	9"	B	.80	23806*	23806	22754†	.....
7163	$\frac{3}{4}$ "	9"	A	.80	22587*	22587	22749†	.....
9380	$\frac{3}{4}$ "	18"	A	1.10	22587*	22587	22749†	.....
9382	$\frac{3}{4}$ "	24"	A	1.25	22587*	22587	22749†	.....
23081	$\frac{3}{4}$ "	9"	B	.80	.....	23806	22754	.....
23082	$\frac{3}{4}$ "	18"	B	1.10	.....	23806	22754	.....
23083	$\frac{3}{4}$ "	24"	B	1.25	.....	23806	22754	.....
7172	$\frac{1}{16}$ "	9"	B	.90	.....	23806*	22754	22510†
7097	$\frac{1}{8}$ "	9"	B	.90	.....	23806*	22754	22510†
9388	$\frac{1}{8}$ "	18"	B	1.25	.....	23806*	22754	22510†
9390	$\frac{1}{8}$ "	24"	B	1.50	.....	23806*	22754	22510†
7173	$\frac{1}{16}$ "	9"	B	1.00	.....	23806*	22754	22510†
7096	$\frac{1}{8}$ "	9"	B	1.00	.....	23806*	22754	22510†
9396	$\frac{1}{8}$ "	18"	B	1.50	.....	23806*	22754	22510†
9398	$\frac{1}{8}$ "	24"	B	1.75	.....	23806*	22754	22510†
10751	$\frac{1}{8}$ "	12"	B	1.25	.....	23806*	22754	22510†
10981	$\frac{1}{8}$ "	24"	B	2.00	.....	23806*	22754	22510†
21942	$\frac{1}{4}$ "	18"	No. 2	2.00	.....	.....	21726*	21726
21943	$\frac{1}{4}$ "	30"	No. 2	2.75	.....	.....	21726*	21726
21944	$\frac{1}{4}$ "	18"	No. 2	2.30	.....	.....	21726*	21726
21945	$\frac{1}{4}$ "	30"	No. 2	3.00	.....	.....	21726*	21726
21946	$\frac{1}{4}$ "	18"	No. 2	2.55	.....	.....	21726*	21726
21947	$\frac{1}{4}$ "	30"	No. 2	3.25	.....	.....	21726*	21726
21948	$\frac{1}{4}$ "	18"	No. 2	2.85	.....	.....	21726*	21726
21949	$\frac{1}{4}$ "	30"	No. 2	3.75	.....	.....	21726*	21726
21950	$\frac{1}{4}$ "	18"	No. 2	3.50	.....	.....	21726*	21726
21951	$\frac{1}{4}$ "	30"	No. 2	4.50	.....	.....	21726*	21726

* These sizes beyond Hammer's efficiency range.

† These sizes below limit which can be used without danger of excessive drill breakage.

** Standard Package—6 to a box.

Bull-Point (Fig. D)—For demolition drilling.

No. 23804	10" long; shank No. 1 ($\frac{1}{2}$ " or $\frac{3}{4}$ " Hammer)	\$ 1.65
No. 23805	18" long; shank No. 1 ($\frac{1}{2}$ " or $\frac{3}{4}$ " Hammer)	2.30
No. 9036	12" long; shank No. 3 ($\frac{1}{8}$ " or 2" Hammer)	1.80
No. 9410	20" long; shank No. 3 ($\frac{1}{8}$ " or 2" Hammer)	2.50

Web-Cutting Tool (Fig. E)—To break out "web" between star drill holes for large openings in concrete.

No. 20859	19" long; shank No. 3 ($\frac{1}{8}$ " or 2" Hammer)	7.75
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4-Point Scaling Tool (Fig. F)—For removing scale.

No. 17335	9" long; shank No. 1 ($\frac{1}{2}$ " or $\frac{3}{4}$ " Hammer)	2.25
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Scaling Chisels (Fig. G)—For removing scale and weld spatter.

No. 12446	$\frac{1}{4}$ " blade; 9" long; No. 1 shank ($\frac{1}{2}$ " or $\frac{3}{4}$ " Hammer)	2.15
No. 17314	$\frac{1}{2}$ " blade; 9" long; No. 1 shank ($\frac{1}{2}$ " or $\frac{3}{4}$ " Hammer)	2.25
No. 17315	$\frac{1}{2}$ " blade; 9" long; No. 1 shank ($\frac{1}{2}$ " or $\frac{3}{4}$ " Hammer)	2.35
No. 12401	$\frac{1}{4}$ " blade; 12" long; No. 3 shank ($\frac{1}{8}$ " or 2" Hammer)	2.40
No. 22886	$\frac{1}{2}$ " blade; 12" long; No. 3 shank ($\frac{1}{8}$ " or 2" Hammer)	2.50
No. 22887	$\frac{1}{2}$ " blade; 12" long; No. 3 shank ($\frac{1}{8}$ " or 2" Hammer)	4.25

Cold Chisels (Fig. H)—For chipping, edging, channeling.

No. 11108	$\frac{5}{8}$ " blade; 8" long; No. 1 shank ($\frac{1}{2}$ " or $\frac{3}{4}$ " Hammer)	1.40
No. 7095	$\frac{3}{8}$ " blade; 9" long; No. 3 shank ($\frac{1}{8}$ " or 2" Hammer)	1.50
No. 9405	$\frac{3}{8}$ " blade; 20" long; No. 3 shank ($\frac{1}{8}$ " or 2" Hammer)	2.25

Flat Wood Chisels (Fig. I)—For wood gouging and shaping.

No. 9039	2" blade; 9" long; No. 3 shank ($\frac{1}{8}$ " or 2" Hammer)	3.00
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Bushing Tool (Fig. J)—For surfacing concrete.

No. 11624	8" long; No. 1 shank ($\frac{1}{2}$ " or $\frac{3}{4}$ " Hammer)	6.25
No. 9040	9" long; No. 3 shank ($\frac{1}{8}$ " or 2" Hammer)	6.25
No. 10684	Bushing Head Only	4.75

Seam Tool (Fig. K) For seaming, caulking and pointing.

No. 17232	9" long; No. 1 shank ($\frac{1}{2}$ " or $\frac{3}{4}$ " Hammer)	2.25
No. 9035	9" long; No. 3 shank ($\frac{1}{8}$ " or 2" Hammer)	2.35

Stripping Chisel For stripping, "peeling" and separating die-cut cardboard boxes and cartons.

No. 30837	$\frac{1}{2}$ " blade; 24" long; No. 1 shank ($\frac{1}{2}$ " or $\frac{3}{4}$ " Hammer)	2.75
No. 30703	1" blade; 24" long; No. 1 shank ($\frac{1}{2}$ " or $\frac{3}{4}$ " Hammer)	3.00

Tool Blanks—Can be forged into any special shapes required for special applications.

No. 11107	10" long; No. 1 shank ($\frac{1}{2}$ " or $\frac{3}{4}$ " Hammer)	1.15
No. 7267	12" long; No. 3 shank ($\frac{1}{8}$ " or 2" Hammer)	1.25

"ELECTRIC TOOL HEADQUARTERS"

Black & Decker

Portable Electric QUICK-SAWS*

BLACK & DECKER Portable Electric Quick-Saws offer complete safety, perfect balance, increased power; efficient fan and ample vent slots, close-coupled design, reduced weight and length, "saw grip" switch handle.

Cutting depth can be adjusted at any point up to maximum. Shoe can be tilted for bevel cutting at any angle to 45°. A detachable, adjustable rip-fence guides rip-cutting up to 6". Telescoping guard covers blade except when cutting. Inner guard opens as Saw enters cut, and springs closed as Saw emerges. Outer guard swivels to follow depth adjustment. 2-pole instant-release switch inside the grip prevents accidents.

7-Inch Electric QUICK-SAW

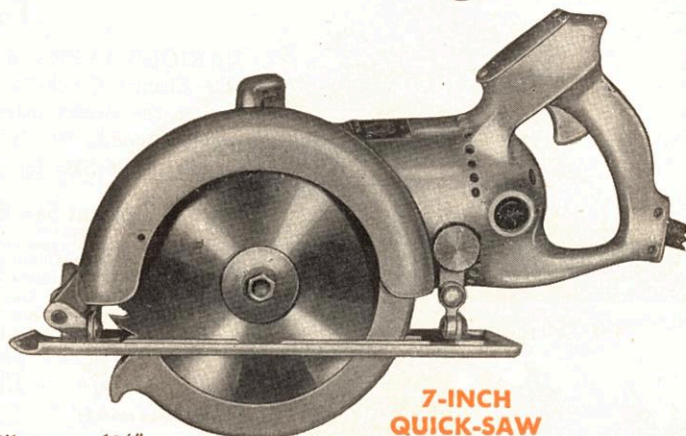
(Formerly No. 75 Quick-Saw)

CATALOG No. 260 Depth of Cut—2 $\frac{3}{8}$ "

Widely useful portable Saw; depth of cut will handle all popular lumber sizes; power is transmitted by efficient worm gears.

Specifications

Diameter of Saw blade.....7 $\frac{1}{4}$ "; Driving Flange Pilot.....1 $\frac{1}{8}$ ".
Maximum vertical depth of cut:
On vertical cut.....2 $\frac{3}{8}$ " (2 $\frac{1}{2}$ " dressed).
On 45° cut.....1 $\frac{3}{4}$ " (2" dressed).
Speed: No-load.....3200 R.P.M. Overall length.....17 $\frac{1}{2}$ ".
Weight: Net.....18 $\frac{3}{4}$ lbs.; Shipping.....38 lbs.
Standard Equipment — 2-pole instant-release switch; 3-wire cable and plug; adjustable shoe; detachable ripping fence; combination rip and cross-cut blade; carrying case; one-half pound container of "Saw Lube"; T-handle wrench; "universal" motor.
Standard Voltage — 110; also available for 220 or 250 volts.
Catalog No. 260 (specify voltage) **\$110.00**
Price, complete



7-INCH QUICK-SAW

8-Inch Electric QUICK-SAW

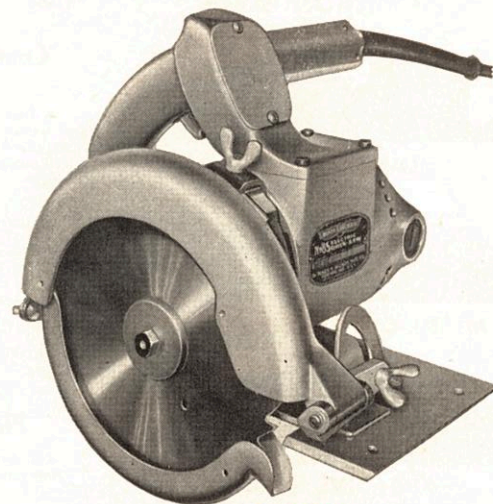
(Formerly No. 85 Quick-Saw)

CATALOG No. 382 Depth of Cut—2 $\frac{5}{8}$ "

A close-coupled, perfectly balanced cut-off Saw, especially suited to one-hand operation. Helical gears, splined spindle, full-powered motor.

Specifications

Diameter of blade.....8 $\frac{1}{8}$ "; Driving Flange Pilot.....1 $\frac{3}{8}$ ".
Maximum vertical depth of cut:
On vertical cut.....2 $\frac{5}{8}$ " (3" dressed).
On 45° cut.....2".
No-load spindle speed....5,000 R.P.M. Overall length.....13 $\frac{1}{4}$ ".
Weight: Net.....19 $\frac{5}{8}$ lbs.; Shipping.....45 lbs.
Standard Equipment — 2-pole instant-release switch; 3-wire cable and plug; adjustable shoe; detachable ripping fence; one combination rip and cross-cut blade; T-handle wrench; metal carrying case; "universal" motor.
Standard Voltage — 110; also available for 220 or 250 volts.
Catalog No. 382 (specify voltage) **\$130.00**
Price, complete



8-INCH QUICK-SAW

9-Inch Electric QUICK-SAW

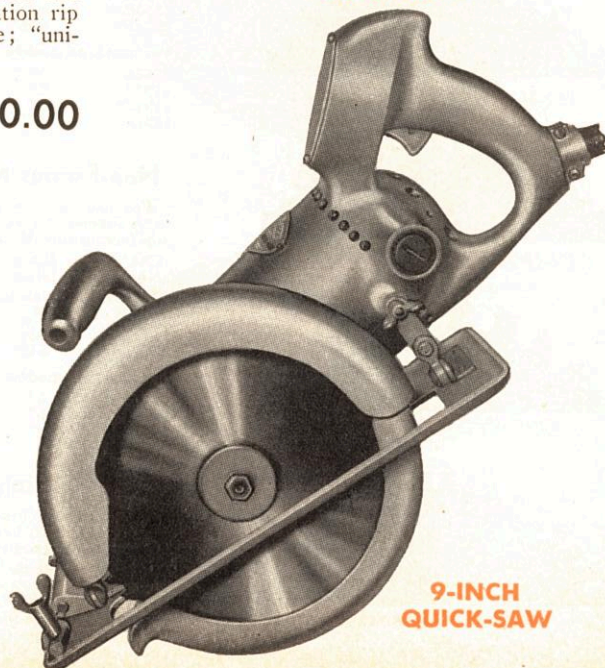
(Formerly No. 95 Quick-Saw)

CATALOG No. 375 Depth of Cut—3 $\frac{1}{8}$ "

A larger unit for work requiring greater depth of cut; power is transmitted by efficient worm gears.

Specifications

Diam. of Saw blade....9 $\frac{1}{4}$ "; Driving Flange Pilot...1 $\frac{3}{8}$ ".
Maximum vertical depth of cut:
On vertical cut.....3 $\frac{1}{8}$ " (3 $\frac{1}{2}$ " dressed).
On 45° cut.....2 $\frac{3}{8}$ " (2 $\frac{1}{2}$ " dressed).
Speed: No-load 2500 R.P.M. Overall length.....19 $\frac{1}{4}$ ".
Weight: Net.....25 $\frac{1}{4}$ lbs.; Shipping.....54 lbs.
Standard Equipment — 3-wire cable and plug; 2-pole instant-release switch; adjustable shoe; detachable ripping fence; combination rip and cross-cut blade; carrying case; one-half pound container of "Saw Lube"; T-handle wrench; "universal" motor.
Standard Voltage — 110; also available for 220 or 250 volts.
Catalog No. 375 (specify voltage) **145.00**
Price, complete



9-INCH QUICK-SAW

* Trade-Mark Reg. U. S. Pat. Off.



"ELECTRIC TOOL HEADQUARTERS"

Saw Blades For Portable Electric Quick-Saws

VARIOUS TYPES of Saw Blades and Discs are available for use with the Portable Electric Quick-Saws, adapting these units to a wide range of uses. In addition to the Blades listed for current model Quick-Saws, sizes are also listed for previous models No. 35, 6", 8" and 10" Saws. Blades are easily interchanged on the spindle of the Saw for which they are indicated.

Crosscut Saw Blade

For fast, smooth cross-cutting. Makes a smoother cut than the Combination Blade furnished as standard equipment.

Cat. No.	Blade Diam.	Use with Quick-Saw	Price Each
For current Quick-Saw models—			
19773	7 $\frac{1}{4}$ "	7-inch	\$ 5.25
23160	8 $\frac{1}{2}$ "	8-inch	6.50
22740	9 $\frac{1}{4}$ "	9-inch	7.35

For previous models—			
20359	5"	No. 35	\$ 4.40
11732	6"	6-inch	4.65
11843*	8"	8-inch	6.50
11868	10"	10-inch	8.75

Combination Rip and Crosscut Saw Blade

A fast-cutting blade for ripping in all kinds of wood, and for general service cross-cutting. Supplied as standard equipment with all Electric Saws.

Cat. No.	Blade Diam.	Use with Quick-Saw	Price Each
For current Quick-Saw models—			
19774	7 $\frac{1}{4}$ "	7-inch	\$ 5.25
23161	8 $\frac{1}{2}$ "	8-inch	6.50
22728	9 $\frac{1}{4}$ "	9-inch	7.35

For previous models—			
20268	5"	No. 35	4.40
11520	6"	6-inch	4.65
11701*	8"	8-inch	6.50
11867	10"	10-inch	8.75

Planer or Mitre Saw Blade

For making very smooth cuts, both rip and cross-cut on interior finish and trim.

Cat. No.	Blade Diam.	Use with Quick-Saw	Price Each
For current Quick-Saw models—			
20362	7 $\frac{1}{4}$ "	7-inch	\$ 8.25
23158	8 $\frac{1}{2}$ "	8-inch	10.00
22743	9 $\frac{1}{4}$ "	9-inch	11.25

For previous models—			
20358	5"	No. 35	6.75
11942	6"	6-inch	8.75
11945*	8"	8-inch	10.00
11948	10"	10-inch	14.00

Non-Ferrous Metal Cutting Saw

For use on non-ferrous metals only. Has teeth shaped and set especially for cutting soft, non-ferrous metals, including lead.

Cat. No.	Blade Diam.	Use with Quick-Saw	Price Each
For current Quick-Saw models—			
21868	7 $\frac{1}{4}$ "	7-inch	\$ 5.85
24073	8 $\frac{1}{2}$ "	8-inch	7.00
22744	9 $\frac{1}{4}$ "	9-inch	7.65

For previous models—			
24352	5"	No. 35	\$ 5.25
11913	6"	6-inch	4.65
11946*	8"	8-inch	7.00

Friction Saw Blade

For cutting corrugated galvanized sheet. Cuts faster, with less dirt, than abrasive disc. Blade is taper-ground for clearance.

Cat. No.	Blade Diam.	Use with Quick-Saw	Price Each
24771	6"	7-inch	\$ 7.00
24772	7"	8-inch	7.90
24773	8"	9-inch	8.75

* 8" and 10" Blades have same diameter hole. 8" Blade can be used on 10" Saw.

Abrasive Disc

For sawing, cutting and slotting in slate, marble, asbestos, tile, transite and porcelain.

Cat. No.	Blade Diam.	Use with Quick-Saw	Price Each
For current Quick-Saw models—			
19766	7" x $\frac{1}{8}$ "	7-inch	\$ 2.30
11947*	8" x $\frac{1}{8}$ "	8-inch	2.55
22739	9" x $\frac{1}{8}$ "	9-inch	3.15

For previous models—			
20368	5" x $\frac{1}{8}$ "	No. 35	1.70
11944	6" x $\frac{1}{8}$ "	6-inch	2.00

For thin-gauge ferrous metals—			
23582	7" x $\frac{1}{8}$ "	7-inch	2.30
23583	8" x $\frac{1}{8}$ "	8-inch	2.55
23584	9" x $\frac{1}{8}$ "	9-inch	3.15

Nail Cutting Saw Blade

An especially useful blade in shipping and receiving departments, and on repair and maintenance work. For opening boxes and crates and for ripping up floors, where nails are encountered.

Cat. No.	Blade Diam.	Use with Quick-Saw	Price Each
For current Quick-Saw models—			
20360	7 $\frac{1}{4}$ "	7-inch	\$ 8.25
23159	8 $\frac{1}{2}$ "	8-inch	9.35
22741	9 $\frac{1}{4}$ "	9-inch	10.00

For previous models—			
20356	5"	No. 35	7.00
20576*	8"	8-inch	9.35

Compo-Board and Wall-Board Saw Blade

For use with the No. 35 Saw only. Teeth are correctly set to give ample clearance, prevent clogging the saw, and avoid tearing the composition material.

Cat. No.	Blade Diam.	Use with Quick-Saw	Price Each
For current Quick-Saw models—			
20363	5"	No. 35	\$ 6.15

Grooving Saw Blade

For use with the 7" Quick-Saw only. The blade is made in one piece, but with teeth set in two planes, so that a grooving cut, similar to a dado head, can be made. Blades are available to cut various widths of grooves, as indicated in the table.

Cat. No.	Blade Diam.	Width of Cut	Price Each
23056	5 $\frac{1}{2}$ "	$\frac{1}{8}$ "	\$ 7.65
23057	5 $\frac{1}{2}$ "	$\frac{3}{16}$ "	9.00
23058	5 $\frac{1}{2}$ "	$\frac{1}{4}$ "	9.35
23059	5 $\frac{1}{2}$ "	$\frac{5}{16}$ "	10.00
23060	5 $\frac{1}{2}$ "	$\frac{3}{8}$ "	10.50

Diamond-Shape Drive Adaptors

A special inner clamp washer for holding saw-blades with diamond shaped drive openings on Quick-Saw spindle.

Cat. No.	Item	Use with Quick-Saw	Price Each
23277	Clamp Washer	7-inch	\$ 2.25
24080	Clamp Washer	8-inch	3.50
24081	Clamp Washer	9-inch	3.50

"ELECTRIC TOOL HEADQUARTERS"

Black & Decker

DIAMOND RIM CUT-OFF BLADES

(with Wet Attachment)

for use with QUICK-SAWS

FOR CUTTING and slotting in stone, tile, marble, ceramics, transite, asbestos cement and other hard, dense materials, the Diamond Rim Cut-Off Blade does a faster, cleaner job — with less heat and less danger of breakage — than abrasive discs or other types of saw blades.

Diamond Rim Blades are of various thicknesses and can be used for slotting of various widths.

Diamond Rim Cut-Off Blades

No. 30846	7" diameter; .040" thick Diamond Rim Blade.	\$ 9.00
No. 30847	7" diameter; .050" thick* Diamond Rim Blade.	12.00
No. 30848	8" diameter; .050" thick* Diamond Rim Blade.	13.20
No. 30849	8" diameter; .064" thick Diamond Rim Blade.	15.60
No. 30850	9" diameter; .050" thick Diamond Rim Blade.	14.40
No. 30851	9" diameter; .064" thick* Diamond Rim Blade.	18.00

*This thickness recommended for general use.

Wet Attachment

THE DIAMOND Rim Cut-Off Blade must be water-cooled while operating, and the Quick-Saw which drives it must, therefore, have a water feed attachment. This attachment consists of a forked nozzle which is fastened to the shoe of the Saw and sprays water on both sides of the Blade. The attachment is also equipped with a regulating valve, a length of hose and a faucet coupling. The same attachment will fit either 7-inch, 8-inch or 9-inch Quick-Saw.

No. 31006 Wet Attachment for Quick-Saw, complete....\$12.00

NOTICE — The use of the Wet Attachment with the Quick-Saw makes it doubly important to ground the Saw properly with the Ground-Wire furnished in the 3-wire cable and to protect the operator thoroughly against shock.

Special Lubricant for Quick-Saws

A SPECIAL lubricant is required for the gearing of the 7-inch, 8-inch (Type B), and 9-inch Saws. We recommend exclusive use of "Saw-Lube," available in convenient containers.

No. 22941	8-Oz. Container of "Saw-Lube".....	\$.35
No. 22938	1-Pint Container of "Saw-Lube".....	.60
No. 22939	1-Quart Container of "Saw-Lube".....	.95
No. 22940	1-Gallon Container of "Saw-Lube".....	3.00

The No. 85 (Type A) Quick-Saw requires a different special lubricant. This is not standard gear grease, but is recommended for the No. 85 (Type A) Saw, Sanders, Buffers and Polishers only.

No. 24380	1-Pound Container of Special Lubricant.....	\$.55
No. 24381	2-Pound Container of Special Lubricant.....	1.00
No. 24382	7½-Pound Container of Special Lubricant.....	3.50

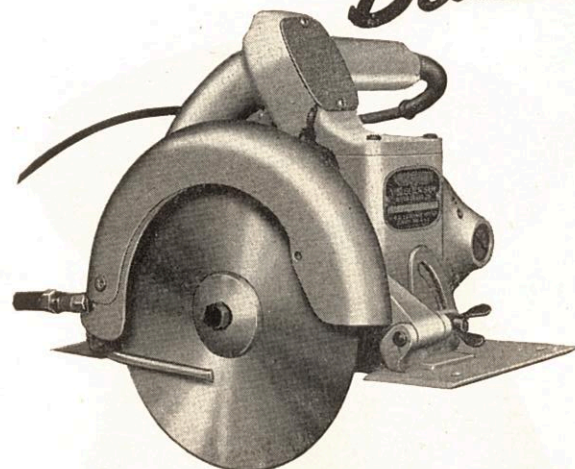
Carrying Cases for Quick-Saws

FOR CONVENIENCE in carrying Quick-Saws and extra blades to the job and to protect this equipment, all Quick-Saws are shipped in metal carrying cases. These cases are light weight sheet metal but sturdy enough to withstand hard use. The Quick-Saw is correctly cradled in the case to prevent damage.

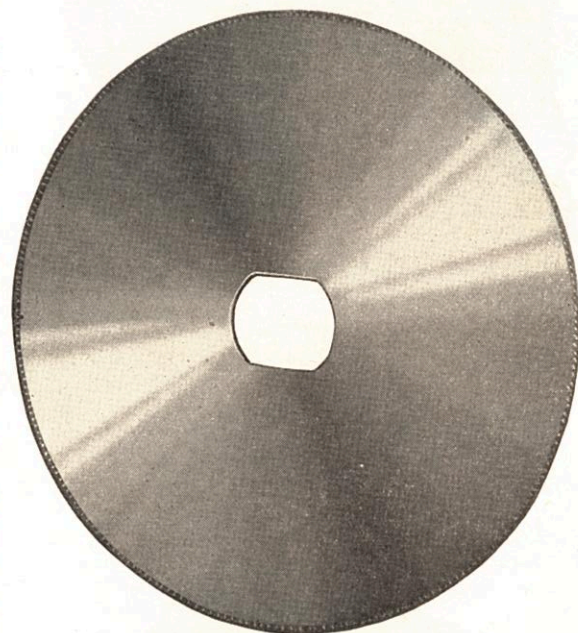
No. 19862	Carrying Case for 7-inch Saw.....	\$5.00
No. 23170	Carrying Case for 8-inch Saw.....	7.75
No. 22730	Carrying Case for 9-inch Saw.....	6.75

Other Replacement Equipment:

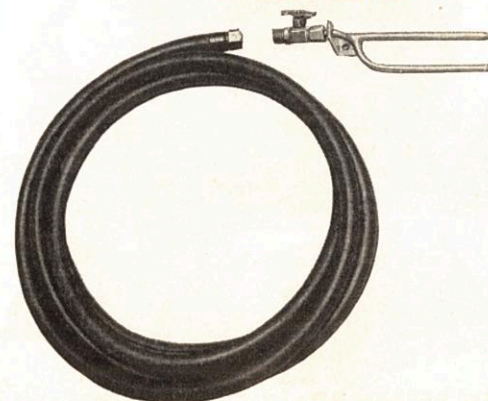
No. 23636	Adjustable Rip Fence for 7-inch and 9-inch Saws	1.75
No. 23637	Adjustable Rip Fence for 8-inch Saw.....	1.85
No. 20343	T-handle Wrench for Tightening Blades on All Saws.....	.75



QUICK-SAW WITH DIAMOND BLADE AND WET ATTACHMENT



DIAMOND RIM CUT-OFF BLADE



WET ATTACHMENT

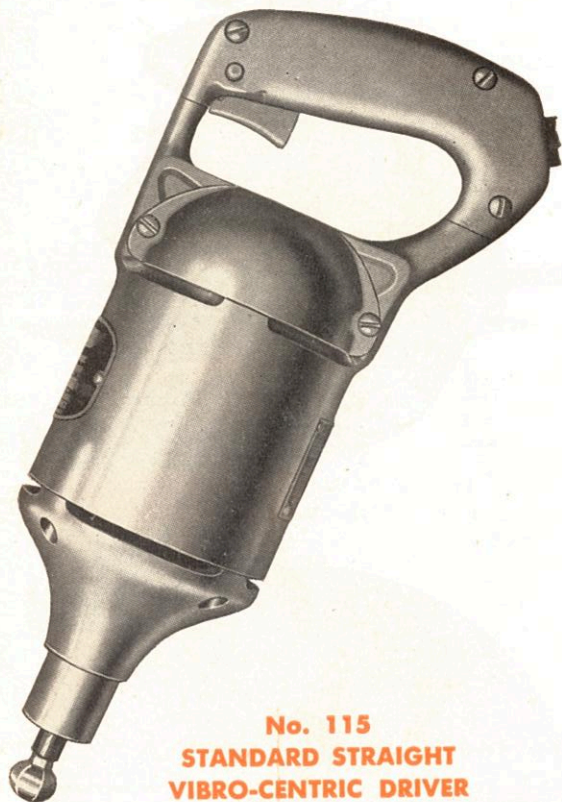


"ELECTRIC TOOL HEADQUARTERS"

Automotive

"VIBRO-CENTRIC"

Valve Seat Grinders



**No. 115
STANDARD STRAIGHT
VIBRO-CENTRIC DRIVER**

ALL VIBRO-CENTRIC Driving Units are engineered to produce perfect accuracy and mirror-finish on all types of valve seats. They are designed for high-speed dry grinding and built to give years of satisfactory service.

In all Vibro-Centric Drivers, the driving spindle incorporates a positive vibrating action, which lifts the grinding stone from the seat once each revolution. This prevents loading the stone, speeds up grinding and reduces stone wear. All grinding is concentric, cutting the entire circumference of the seat and insuring correct alignment. No complicated adjustments or "rigging" are required.

No. 115 Standard Straight Driver

A popular Driver with ample power and stamina for average shop volume.

Spindle Speed 12,000 R.P.M.
Weight: Net 6 1/2 lbs.; Shipping 8 lbs.
Overall Length 12 3/4"
Standard Equipment — 3-conductor cable and plug; safety trigger switch; hex. ball spindle; "universal" motor.
Standard Voltage — 110; also available for 220 or 250 volts.
Catalog No. 115 (specify voltage)
Price, complete **\$36.00**
No. 21068 Angle Drive Attachment \$14.75

No. 343 Standard Basic Kit

Contains the basic items on which to build complete Vibro-Centric equipment for general garage and service station use.

- 1 No. 115 Standard Straight Driver.
- 1 No. 20153 Standard Stone Dressing Stand.
- 2 No. 22100 Standard Stone Sleeves.
- 1 No. 30868 Universal Kit Box.

Catalog No. 343 (specify voltage)
Price, complete **\$77.00**

No. 416 Standard Universal Kit

- 1 No. 115 Standard Straight Driver.
- 1 No. 20153 Standard Stone Dressing Stand.
- 2 No. 22100 Standard Stone Sleeves.
- 1 No. 30868 Universal Kit Box.
- 5 "Gruv-Top" Self-Centering Pilots:
14425 (5/16"-45°); 14426 (11/32"-45°); 14427 (3/8"-45°); 14165 (Ford V-8); 23633 (1 1/2" for Chevrolet Counter Bored Guide).
- 2 Hard Seat Stones: 14049 (1 3/4"-45°); 14100 (1 5/8"-45°).
- 7 Soft Seat Stones*:
14084 (1 1/2"-45°); 14063 (1 5/8"-45°); 14085 (1 3/4"-45°);
14064 (2"-45°); 14198 (1 1/2"-30°); 14199 (1 5/8"-30°); 14090 (1 3/4"-30°).
- 1 Finishing Stone*: 14383 (1 5/8"-45°).

*Any 10 standard stones may be substituted for above assortment.

Catalog No. 416 (specify voltage)
Price, complete **\$112.00**
Catalog No. 30868 Universal Kit Box only \$16.00



**No. 416 STANDARD
UNIVERSAL KIT**

"ELECTRIC TOOL HEADQUARTERS"

Black & Decker

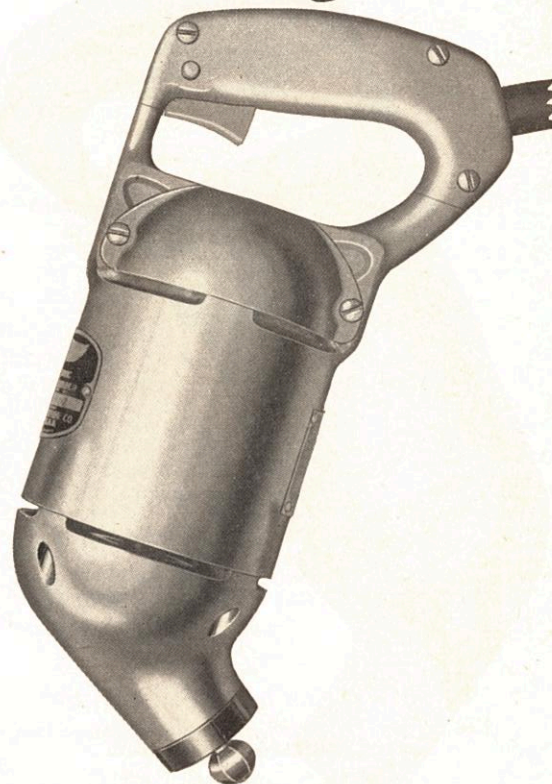
Automotive

"VIBRO-CENTRIC"

Method Kits

THE VIBRO-CENTRIC Valve Seat Grinding Method is composed of precision equipment, designed to be used as a group and built to produce accurate results. To provide a means of protecting this precision equipment and for convenient storage, we have worked out a series of Vibro-Centric Kits, each containing a different assortment of equipment — and each packed in a sturdy, attractive kit box. There is definite space for each item, with room for additional items as required. Select the Vibro-Centric Kit best suited to your shop needs.

"Universal" Vibro-Centric Kits are designed for the general service shop or car dealer handling a variety of car models and an average volume of valve reconitioning work. The assortment of Self-Centering Pilots and Valve Seat Grinding Stones has been selected to handle all popular engines from 1935 through current models.



No. 440 Standard 55° Driver

Incorporates the popular angle drive for working in confined space. Ideal for general garage work on medium and smaller valve seats.

Spindle Speed 12,000 R.P.M.
Weight: Net 6½ lbs.; Shipping 8½ lbs.
Overall Length 11½"

Standard Equipment — 3-conductor cable and plug; safety trigger switch; hex. ball spindle; "universal" motor.

Standard Voltage — 110; also available for 220 or 250 volts.

Catalog No. 440 (specify voltage)

Price, complete **\$42.00**

**No. 440
STANDARD 55°
VIBRO-CENTRIC DRIVER**

No. 456 Standard Basic Kit

Basic equipment, with 55° Standard Driver, especially adapted to working in confined space.

- 1 No. 440 Standard 55° Driver.
- 1 No. 20153 Standard Stone Dressing Stand.
- 2 No. 22100 Standard Stone Sleeves.
- 1 No. 30868 Universal Kit Box.

Catalog No. 456 (specify voltage)

Price, complete **\$83.00**

No. 447 Standard Universal Kit

- 1 No. 440 Standard 55° Driver.
- 1 No. 20153 Standard Stone Dressing Stand.
- 2 No. 22100 Standard Stone Sleeves.
- 1 No. 30868 Universal Kit Box.
- 5 "Gruv-Top" Self-Centering Pilots:
14425 (5/16"); 14426 (11/32"); 14427 (3/8"); 14155 (Ford V-8); 23633 (11/32" for Chevrolet Counter-bored Guide).
- 2 Hard Seat Stones*: 14049 (13/4"-45°); 14100 (15/8"-45°).
- 7 Soft Seat Stones*:
14084 (1 1/2"-45°); 14063 (15/8"-45°); 14085 (1 3/4"-45°);
14064 (2"-45°); 14198 (1 1/2"-30°); 14199 (15/8"-30°);
14090 (1 3/4"-30°).
- 1 Finishing Stone*: 14383 (15/8"-45°).

*Any 10 standard stones may be substituted for above assortment.

Catalog No. 447 (specify voltage)

Price, complete **\$118.00**

Catalog No. 30868 Universal Kit Box only \$16.00



**No. 447 STANDARD
UNIVERSAL KIT**

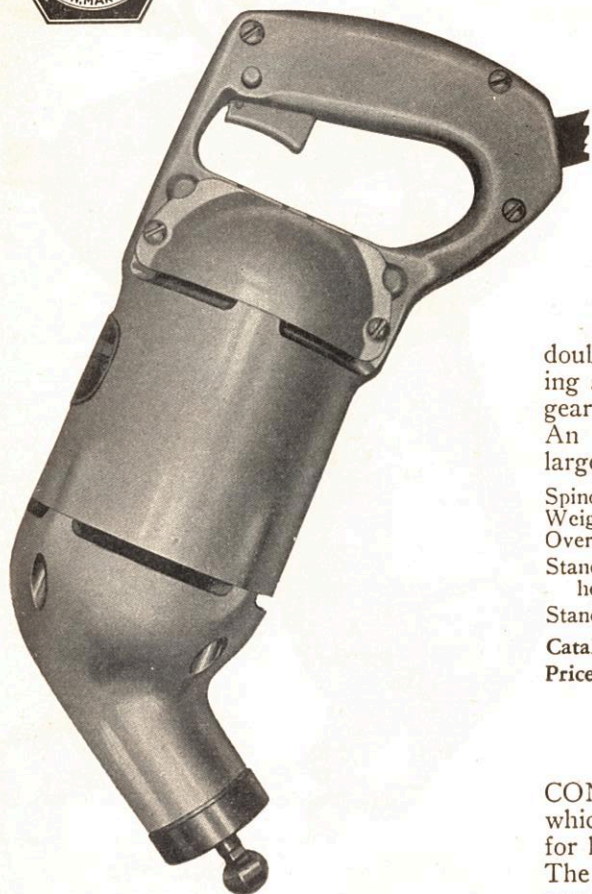


"ELECTRIC TOOL HEADQUARTERS"

Automotive

"VIBRO-CENTRIC" REG. U. S. PAT. OFF.

No. 331 Heavy-Duty 55° Driver



**No. 331 HEAVY-DUTY
VIBRO-CENTRIC DRIVER**

THE ADAPTATION of Vibro-Centric reconditioning to larger valves in truck, tractor and Diesel work, has required a more powerful high speed Heavy-Duty Vibro-Centric Driver. The angle drive of this unit improves working clearance where body, cowl, cab or other obstructions interfere. The Heavy-Duty Driver has nearly double the power of the Standard unit and maintains high grinding speed with larger, heavier stones. Angle drive is through a gear train and positive vibrating action is built into the spindle. An ideal Valve Seat Grinder for production valve work in large shops.

Spindle Speed10,000 R.P.M.
Weight: Net8 lbs.; Shipping9¼ lbs.
Overall Length12¾"

Standard Equipment — 3-conductor cable and plug; 55° geared angle head; safety trigger switch; hex. ball spindle; "universal" motor.

Standard Voltage — 110; also available for 220 or 250 volts.

Catalog No. 331 (specify voltage)

Price, complete**\$48.00**

No. 408 Heavy-Duty Basic Kit

CONTAINS THE Heavy-Duty Driver and basic equipment which enable the "production" shop to assemble the items needed for high speed valve seat grinding on large and special engines. The Kit Box has ample storage room for any needed assortment of Pilots and Stones.

- 1 No. 331 Heavy-Duty 55° Driver.
- 1 No. 20153 Standard Stone Dressing Stand.
- 2 No. 22100 Standard Stone Sleeves.
- 1 No. 30767 Heavy-Duty Kit Box.

Catalog No. 408 (specify voltage)

Price, complete**\$94.00**

No. 336 Heavy-Duty Universal Kit

COMPLETE VALVE seat grinding equipment for large-volume shops and on larger truck and tractor engines. Large assortment of Stones and Pilots for handling wide range of valve seat sizes. Specially recommended to shops specializing in valve work.

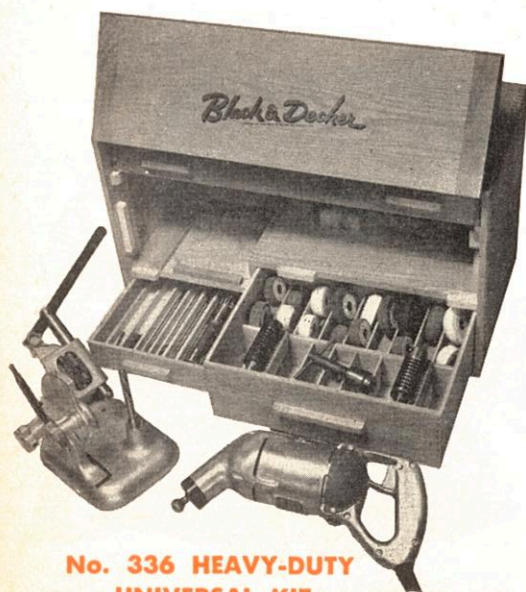
- 1 No. 331 Heavy-Duty 55° Driver.
- 1 No. 20153 Standard Stone Dressing Stand.
- 2 No. 22100 Standard Stone Sleeves.
- 1 No. 30767 Heavy-Duty Kit Box.
- 1 No. 19829 Pilot Turning Wrench.
- 5 Standard "Gruy-Top" Self-Centering Pilots*:
14425 (9/16"); 14426 (1 1/32"); 14427 (3/8"); 14429 (7/16");
14155 (Ford V-8).
- 7 Hard-Seat 45° Vibro-Centric Stones*:
14056 (1 1/2"); 14100 (1 5/8"); 14049 (1 3/4"); 14101 (1 7/8");
14103 (2 1/8"); 14104 (2 1/4"); 14050 (2 1/2").
- 7 Soft-Seat 45° Vibro-Centric Stones*:
14084 (1 1/2"); 14063 (1 5/8"); 14085 (1 3/4"); 14086 (1 7/8");
14087 (2 1/8"); 14088 (2 1/4"); 14089 (2 1/2").
- 2 Soft-Seat 30° Vibro-Centric Stones*: 14199 (1 5/8"); 14090 (1 3/4").

* Any standard stones or pilots, of the same prices, may be substituted for the above.

Catalog No. 336 (specify voltage)

Price, complete**\$140.00**

Catalog No. 30767 Heavy-Duty Kit Box only.....\$20.00



**No. 336 HEAVY-DUTY
UNIVERSAL KIT**

"ELECTRIC TOOL HEADQUARTERS"

SPECIAL "VIBRO-CENTRIC" KITS

Black & Decker

FOR THE convenience of tractor and farm implement dealers who sell and service the leading lines of agricultural and industrial tractors and power units. Each Kit has been checked with the tractor manufacturer's service department and contains the correct assortment of Vibro-Centric equipment to recondition current model engines. Each Kit also has ample room for additional stones and pilots, which can be added at small cost, to handle other makes.

No. 336 "Vibro-Centric" Kit (For Massey-Harris Farm Tractors)

This Heavy-Duty Universal Kit, described in detail on page 46, will handle popular Massey-Harris tractor models.

Catalog No. 336. Price, Complete.....**\$140.00**

No. 411 "Vibro-Centric" Kit (For John Deere Tractors)

Contents:

- 1 No. 115 Standard Straight Driver
- 1 No. 20153 Standard Dressing Stand
- 1 No. 13725 Valve Seat Indicator
- 2 No. 22100 Standard Stone Sleeves
- 8 Self-Centering Expanding Pilots: No. 18608 ($\frac{5}{16}$ "); No. 23937 ($\frac{3}{8}$ "); No. 23971 ($\frac{7}{16}$ "); No. 19894 ($\frac{1}{2}$ "); No. 22184 ($\frac{1}{2}$ "); No. 23522 ($\frac{9}{16}$ "); No. 23578 ($\frac{5}{8}$ "); No. 23939 ($\frac{5}{8}$ ").
- 4 45° Soft-Seat Vibro-Centric Stones: No. 23957 ($1\frac{1}{4}$ "); No. 14087 ($2\frac{1}{8}$ "); No. 14285 ($2\frac{5}{8}$ "); No. 26148 ($2\frac{1}{2}$ ").
- 3 70° Soft-Seat Vibro-Centric Stones: No. 23821 ($1\frac{1}{16}$ "); No. 23822 ($2\frac{1}{4}$ "); No. 23824 ($2\frac{3}{8}$ ").
- 1 30° Soft-Seat Vibro-Centric Stone: No. 14283 ($2\frac{7}{8}$ ").
- 4 Multiple-angle Soft-Seat Stones: No. 23968 ($3"$ x 45° x 20°); No. 26285 ($2\frac{5}{16}"$ x 30° x 20°); No. 26284 ($1\frac{7}{8}"$ x 90° x 30°); No. 26147 ($2\frac{1}{16}"$ x 90° x 30°).
- 1 No. 30767 Heavy-Duty Kit Box

Catalog No. 411. Price, Complete Kit.....**\$171.00**

No. 30894 Auxiliary Kit

(For John Deere Power Lifts, Models A, B, G and H)

AN ASSORTMENT of special pilots, stones, guides and adaptors to recondition valve seats on John Deere Power Lifts. Use with Driver and Dressing Stand in No. 411 Kit listed above.

Contents:

- 1 No. 30506 $1\frac{1}{16}"$ 45° Soft Stone
- 1 No. 30507 $1\frac{1}{16}"$ 45° Soft Stone
- 1 No. 30512 .2485" Special Pilot Assembly
- 1 No. 30513 .280" Special Pilot Assembly
- 1 No. 30514 .311" (Long) Special Pilot Assem.
- 1 No. 30515 .311" (Short) Special Pilot Assem.
- 1 No. 30498 Pilot Guide Sleeve
- 1 No. 30496 Small Guide Bushing
- 1 No. 30500 Large Guide Bushing
- 1 No. 30501 Sleeve for Dressing Stand
- 1 No. 30508 T-Wrench for Pilots

No. 30894 Auxiliary Kit (complete in carton)..**\$19.25**

No. 498 "Vibro-Centric" Kit (For Allis-Chalmers Farm Tractors)

Contents:

- 1 No. 440 Standard 55° Driver
- 1 No. 20153 Standard Dressing Stand
- 2 No. 22100 Standard Stone Sleeves
- 1 30868 Universal Kit Box
- 2 Standard Self-Centering Pilots: No. 14426 ($1\frac{1}{32}"$); No. 14427 ($\frac{3}{8}"$).
- 1 Hard-Seat 45° Vibro-Centric Stone: No. 14101 ($1\frac{7}{8}"$).
- 1 Soft-Seat 45° Vibro-Centric Stone: No. 14084 ($1\frac{1}{2}"$).
- 1 Hard-Seat 30° Vibro-Centric Stone: No. 14289 ($2\frac{1}{8}"$).
- 2 Finishing 45° Vibro-Centric Stones: No. 14382 ($1\frac{1}{2}"$); No. 14385 ($1\frac{7}{8}"$).
- 1 Finishing 30° Vibro-Centric Stone: No. 14375 ($2\frac{1}{8}"$).

Catalog No. 498. Price, Complete.....**\$100.00**

No. 439 "Vibro-Centric" Kit

(For Minneapolis-Moline Tractors and Portable Power Units)

Contents:

- 1 No. 115 Standard Straight Driver
- 1 No. 20153 Standard Dressing Stand
- 2 No. 22100 Standard Stone Sleeves
- 1 No. 30767 Heavy-Duty Kit Box
- 2 Self-Centering Pilots: No. 14426 ($1\frac{1}{32}"$); No. 22989 ($\frac{7}{16}"$).
- 3 Soft-Seat 45° Vibro-Centric Stones: No. 14063 ($1\frac{5}{8}"$); No. 14086 ($1\frac{7}{8}"$); No. 14064 ($2"$).
- 3 Hard-Seat 45° Vibro-Centric Stones: No. 14100 ($1\frac{5}{8}"$); No. 14049 ($1\frac{3}{4}"$); No. 14101 ($1\frac{7}{8}"$).
- 1 Soft-Seat 30° Vibro-Centric Stone: No. 14197 ($1\frac{1}{4}"$).
- 2 Soft-Seat 20° Narrowing Stones: No. 14094 ($1\frac{3}{4}"$); No. 14096 ($2"$).
- 3 Hard-Seat 20° Narrowing Stones: No. 14109 ($1\frac{3}{4}"$); No. 14110 ($1\frac{7}{8}"$); No. 14111 ($2"$).
- 4 Finishing 45° Vibro-Centric Stones: No. 14383 ($1\frac{5}{8}"$); No. 14384 ($1\frac{3}{4}"$); No. 14385 ($1\frac{7}{8}"$); No. 14386 ($2"$).

Catalog No. 439. Price, Complete.....**\$118.00**

No. 500 "Vibro-Centric" Kit

(For McCormick-Deering-International Agricultural and Industrial Tractors)

Contents:

- 1 No. 440 Standard 55° Driver
- 1 No. 20153 Standard Dressing Stand
- 2 No. 22100 Standard Stone Sleeves
- 1 No. 30767 Heavy-Duty Kit Box
- 5 Self-Centering Expanding Pilots: No. 14425 ($\frac{9}{16}"$); No. 14426 ($1\frac{1}{32}"$); No. 14427 ($\frac{3}{8}"$); No. 14429 ($\frac{7}{16}"$); No. 17903 ($\frac{7}{16}"$).
- 6 45° Soft-Seat Vibro-Centric Stones: No. 18541 ($1\frac{3}{8}"$); No. 14084 ($1\frac{1}{2}"$); No. 14085 ($1\frac{3}{4}"$); No. 14086 ($1\frac{7}{8}"$); No. 14064 ($2"$); No. 16929 ($2\frac{3}{8}"$).
- 6 20° Soft-Seat Vibro-Centric Stones: No. 14092 ($1\frac{1}{2}"$); No. 14093 ($1\frac{5}{8}"$); No. 14094 ($1\frac{3}{4}"$); No. 14095 ($1\frac{7}{8}"$); No. 14096 ($2"$); No. 23668 ($2\frac{3}{8}"$).
- 4 70° Soft-Seat Vibro-Centric Stones: No. 23821 ($1\frac{1}{16}"$); No. 23822 ($2\frac{1}{4}"$); No. 23823 ($2\frac{1}{4}"$); No. 23824 ($2\frac{3}{8}"$).
- 2 45° Hard-Seat Vibro-Centric Stones: No. 14100 ($1\frac{5}{8}"$); No. 14049 ($1\frac{3}{4}"$).
- 2 20° Hard-Seat Vibro-Centric Stones: No. 14108 ($1\frac{5}{8}"$); No. 14109 ($1\frac{3}{4}"$).

Catalog No. 500. Price, Complete.....**\$142.00**

No. 504 "Vibro-Centric" Kit

(For J. I. Case Farm Tractors)

Contents:

- 1 No. 440 Standard 55° Driver
- 1 No. 20153 Standard Dressing Stand
- 2 No. 22100 Standard Stone Sleeves
- 1 30868 Universal Kit Box
- 5 Self-Centering Pilots: No. 14425 ($\frac{5}{16}"$); No. 18608 ($\frac{7}{16}"$); No. 14426 ($1\frac{1}{32}"$); No. 14429 ($\frac{7}{16}"$); No. 23971 ($\frac{7}{16}"$).
- 4 Soft-Seat 45° Vibro-Centric Stones: No. 18541 ($1\frac{3}{8}"$); No. 14084 ($1\frac{1}{2}"$); No. 14086 ($1\frac{7}{8}"$); No. 14087 ($2\frac{1}{8}"$).
- 2 Hard-Seat 45° Vibro-Centric Stones: No. 14101 ($1\frac{7}{8}"$); No. 14103 ($2\frac{1}{8}"$).
- 2 Soft-Seat 30° Vibro-Centric Stones: No. 14198 ($1\frac{1}{2}"$); No. 14090 ($1\frac{3}{4}"$).

Catalog No. 504. Price, Complete.....**\$118.00**

See Additional Special "Vibro-Centric" Kits on Next Page.



"ELECTRIC TOOL HEADQUARTERS"

SPECIAL "VIBRO-CENTRIC" KITS (Continued)

No. 505 "Vibro-Centric" Kit

(For Oliver Farm Tractors)

Contents:

- 1 No. 440 Standard 55° Driver
- 1 No. 20153 Standard Dressing Stand
- 2 No. 22100 Standard Stone Sleeves
- 1 No. 30868 Universal Kit Box
- 4 Self-Centering Expanding Pilots: No. 14425 ($\frac{5}{16}$ ");
No. 14427 ($\frac{3}{8}$ "); No. 17345 ($\frac{3}{8}$ "); No. 22989 ($\frac{7}{16}$ ");
- 4 Soft-seat 45° Vibro-Centric Stones: No. 18541 ($1\frac{1}{8}$ ");
No. 14085 ($1\frac{1}{4}$ "); No. 14064 (2"); No. 16929 ($2\frac{3}{8}$ ");
- 1 Soft-Seat 30° Vibro-Centric Stone: No. 14199 ($1\frac{5}{8}$ ").

Catalog No. 505. Price, Complete..... **\$110.00**

No. 506 "Vibro-Centric" Kit

(For Caterpillar Equipment)

Contents:

- 1 No. 331 Heavy-Duty 55° Driver
- 1 No. 20153 Standard Dressing Stand
- 2 No. 22100 Standard Stone Sleeves
- 1 No. 19829 Pilot Wrench
- 1 No. 30767 Heavy-Duty Kit Box
- 8 Self-Centering Expanding Pilots:
No. 23937 ($\frac{3}{8}$ "); No. 23971 ($\frac{7}{16}$ "); No. 14429 ($\frac{7}{16}$ ");
No. 14431 ($\frac{1}{2}$ "); No. 16047 ($\frac{1}{2}$ "); No. 23665 ($\frac{1}{2}$ ");
No. 19203 ($\frac{9}{16}$ "); No. 23939 ($\frac{5}{8}$ ").
- 9 Soft-Seat 45° Seating Stones:
No. 14084 ($1\frac{1}{2}$ "); No. 14085 ($1\frac{3}{4}$ "); No. 14064 (2");
No. 14088 ($2\frac{1}{4}$ "); No. 16929 ($2\frac{3}{8}$ "); No. 14089 ($2\frac{1}{2}$ ");
No. 14285 ($2\frac{5}{8}$ "); No. 14153 ($2\frac{3}{4}$ "); No. 21465 ($3\frac{1}{8}$ ").
- 9 Soft-Seat 20° Narrowing Stones:
No. 14093 ($1\frac{5}{8}$ "); No. 14095 ($1\frac{7}{8}$ "); No. 14097 ($2\frac{1}{8}$ ");
No. 23668 ($2\frac{3}{8}$ "); No. 14099 ($2\frac{1}{2}$ "); No. 14274 ($2\frac{5}{8}$ ");
No. 14275 ($2\frac{3}{4}$ "); No. 14276 ($2\frac{7}{8}$ "); No. 25951 ($3\frac{1}{4}$ ");
- 9 Soft-Seat 45° Finishing Stones:
No. 14382 ($1\frac{1}{2}$ "); No. 14384 ($1\frac{3}{4}$ "); No. 14386 (2");
No. 14388 ($2\frac{1}{4}$ "); No. 23670 ($2\frac{3}{8}$ "); No. 14389 ($2\frac{1}{2}$ ");
No. 14390 ($2\frac{5}{8}$ "); No. 14391 ($2\frac{3}{4}$ "); No. 21466 ($3\frac{1}{8}$ ").

Catalog No. 506. Price, Complete..... **\$210.00**

No. 513 "Vibro-Centric" Kit

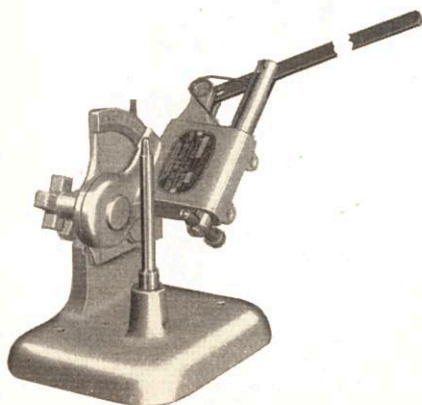
(For International Trucks, All Current and Recent Models)

Contents:

- 1 No. 331 Heavy-Duty Driver
- 1 No. 20153 Standard Dressing Stand
- 2 No. 27200 Ball-Bearing Stone Sleeves
- 1 No. 13725 Dial Indicator
- 1 No. 30767 Heavy-Duty Kit Box
- 5 Gruv-Top Self-Centering Pilots:
No. 17345 ($\frac{3}{8}$ "); No. 14427 ($\frac{3}{8}$ "); No. 18608 ($\frac{5}{16}$ ");
No. 14426 ($1\frac{1}{32}$ "); No. 22989 ($\frac{7}{16}$ ").
- 7 45° Vibro-Centric Stones:
No. 14084 ($1\frac{1}{2}$ "); No. 14063 ($1\frac{5}{8}$ "); No. 14085 ($1\frac{3}{4}$ ");
No. 14049 ($1\frac{3}{4}$ "); No. 14086 ($1\frac{7}{8}$ "); No. 14064 (2");
No. 14088 ($2\frac{1}{4}$ ").
- 1 15° Vibro-Centric Stone:
No. 25632 ($2\frac{3}{8}$ ").
- 6 45° Finishing Stones:
No. 14382 ($1\frac{1}{2}$ "); No. 14383 ($1\frac{5}{8}$ "); No. 14384 ($1\frac{3}{4}$ ");
No. 14385 ($1\frac{7}{8}$ "); No. 14386 (2"); No. 14388 ($2\frac{1}{4}$ ").
- 1 15° Finishing Stone: No. 25638 ($2\frac{3}{8}$ ").

Catalog No. 513. Price, Complete..... **\$171.00**

The Vibro-Centric Drivers in all of the above Special Kits are equipped with "universal" motors, operating on either direct or alternating current, and can be furnished for 110, 220 or 250 volts. Always specify voltage desired when ordering any of these Kits.



No. 20153 DRESSING STAND

No. 20153 Standard Stone Dressing Stand

A STURDIER, more flexible Stand with greater range for truing and cleaning all sizes of Vibro-Centric Stones with absolute accuracy and minimum waste. The design incorporates a micrometer diamond feed, a horizontal adjustment for various stone sizes and for vertical or horizontal cutting, and an improved angle indicator that is more easily read and set.

Stone Size Capacity.....up to $3\frac{1}{2}$ " ;
Mandrel Diameter $\frac{3}{8}$ " ; Angle Adjustment.....0° to 90°.
Weight: Net10 $\frac{1}{4}$ lbs; Shipping11 $\frac{1}{4}$ lbs.
Standard Equipment — Diamond Point; Mandrel; Adjustable Feeding Arm with Micrometer Diamond Feed.

Catalog No. 20153 Standard Stone Dressing Stand, complete.....\$20.00

Catalog No. 20157 Diamond Nib for No. 20153 Stand..... 3.50

Angle Drive Attachment for Use with Standard Straight Driver

Consists of a flexible shaft operating in a metal sleeve, curved to an angle of about 30°. The upper end of the sleeve fits around the turned nose of the Driver. The flexible shaft is fitted with a hexagon socket in which the hex-ball Driver spindle seats; the lower end is fitted with a hexagon ball spindle.

Catalog No. 21068 Angle Drive Attachment, complete.....\$14.75
Weight: Net1 $\frac{1}{2}$ lbs.; Shipping2 lbs.

"ELECTRIC TOOL HEADQUARTERS"

"GRUV-TOP"

Automotive Expanding Sleeve Self-Centering Pilots

"GRUV-TOP" Self-Centering Pilots provide an accurate, rigid axis for grinding with "Vibro-Centric" Stones. Two machined tapers—at the top of the shank, to fit the top of the valve guide, and at the bottom, to expand a split sleeve in the lower end of the guide. The expanding feature compensates for worn guides and eliminates a large stock of oversize pilots, as Self-Centering Pilots expand .020" to .030".

The patented "GRUV-TOP" feature locks the retainer ball in No. 27200 Ball-Bearing Stone Sleeve, holding the inner sleeve stationary and preventing friction and wear between sleeve and pilot stem. These Pilots also fit other Stone Sleeves listed on page 50.

Nominal Size	Range	Catalog No.	Dimensions A | B		Price Complete	Sleeve No.	Price of Sleeve
1/4"	.233"—.254"	14423 25245	1 1/16"	2 27/32"	\$3.50 5.90	13908 15145	\$.75 .75
1 7/64"—9/32"	.262"—.283"	14424	1 1/16"	2 5/16"	3.50	13907	.75
9/32"—1 9/64"	.277"—.303"	15792	1 3/16"	3 1/2"	5.90	15145	.75
5/16"—2 1/64"	.308"—.339"	14425 18608 16197 21300	1 5/32"	3"	3.50 5.90 5.90 3.50	13902 13902 13902 13902	.75 .75 .75 .75
1 1/32"	(for counter-bored guides)	23633*	1 9/32"	3 1/2"	3.50	13904	.75
1 1/32"—2 3/64"	.339"—.370"	21302 16199* 14426 24319 26528	1 17/32"	2 11/16"	3.50 3.50 3.50 9.00 5.90	13904 13904 13904 13904 13904	.75 .75 .75 .75 .75
3/8" (for counter-bored guides)		21304	1 17/32"	3 5/32"	3.50	13903	.75
3/8"—2 5/64"	.371"—.394"	14427 16207 16201 17345 16204 23937	1 17/32"	3 3/16"	3.50 5.90 5.90 5.90 5.90 5.90	13903 13903 13903 13903 13903 13903	.75 .75 .75 .75 .75 .75
2 5/64"	.3906"—.4062"	17001	1 25/32"	3 7/32"	5.90	14653	1.00
1 3/32"—2 1/64"	.402"—.424"	14428 16826	1 29/32"	3 5/32"	3.50 5.90	13909 13909	.75 .75
2 7/64"—7/16"	.418"—.434"	16206	1 5/32"	3 7/32"	5.90	13909	.75
7/16"—2 9/64"	.433"—.455"	14429 24343 22989 15179 23971 15743 23973 17903	2 1/4"	3 1/2"	3.50 9.00 5.90 5.90 5.90 5.90 5.90 5.90	13901 13901 13901 13901 13901 13901 13901 13901	.75 .75 .75 .75 .75 .75 .75 .75
1 5/32"—3 1/64"	.464"—.495"	14430	2 5/32"	3 3/8"	3.50	13910	.75
1/2"—1 7/32"	.496"—.535"	14431 16047 23975 23665 26908 19894 22184	2"	3 19/32"	3.50 5.90 9.00 9.00 9.00 5.90 5.90	13905 13905 13905 13905 13905 13905 13905	.75 .75 .75 .75 .75 .75 .75
1 7/32"—9/16"	.5312"—.5625"	27108	2 3/16"	3 23/32"	9.00	24497	1.00
9/16"—1 9/32"	.558"—.598"	14432 15656 23522 26864 19203	2"	3 11/32"	3.50 5.90 5.90 9.00 9.00	13899 13899 13899 13899 13899	1.00 1.00 1.00 1.00 1.00
1 9/32"—3 9/64"	.5937"—.620"	14435 *	3/4"	3 5/16"	3.50	13899	1.00
5/8"—2 1/32"	.621"—.661"	14433 23939 23578 26143	1 5/16"	3 37/64"	3.50 5.90 5.90 9.00	13906 13906 13906 13906	1.00 1.00 1.00 1.00
1 1/16"—2 3/32"	.683"—.724"	15178 18242 26327 18244	2"	3 19/32"	4.90 7.25 9.00 7.25	15046 15046 15046 15046	1.50 1.50 1.50 1.50
3/4"—2 5/32"	.746"—.786"	27110	7 1/2"	3 1/8"	9.00	14149	1.50

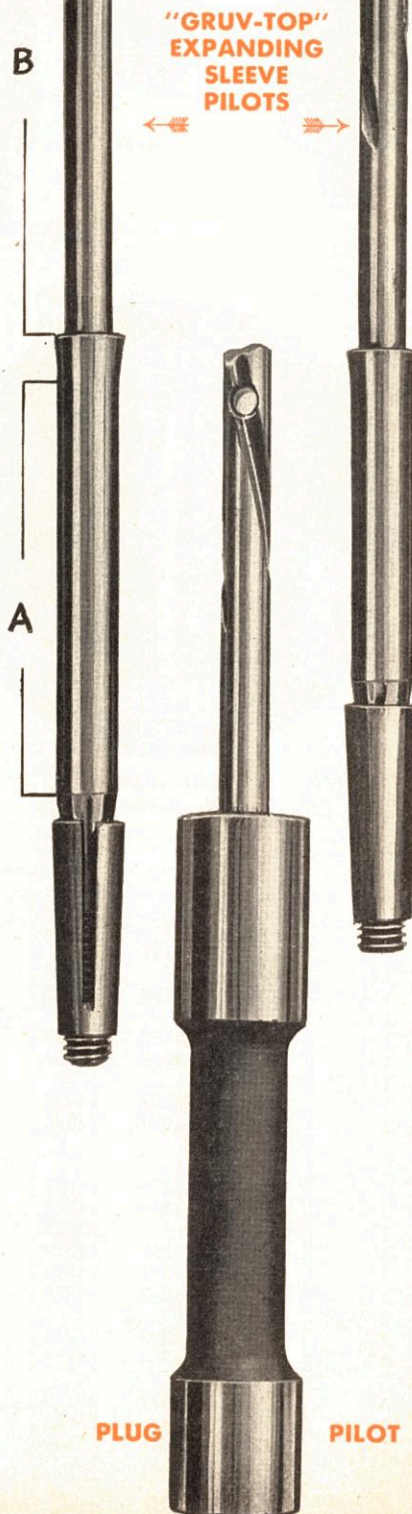
* For Chevrolet.

* For Ford Model "A".

"Gruv-Top" Plug Type Automotive Pilots

Range	Catalog No.	Engine	Price Complete
.8458"—.8525"	18248	Ford "60"	\$3.50
1.0278"—1.0330"	14155	Ford "V-8"	3.50
1.029"—1.033"	22337	Lincoln Zephyr	7.25

Black & Decker

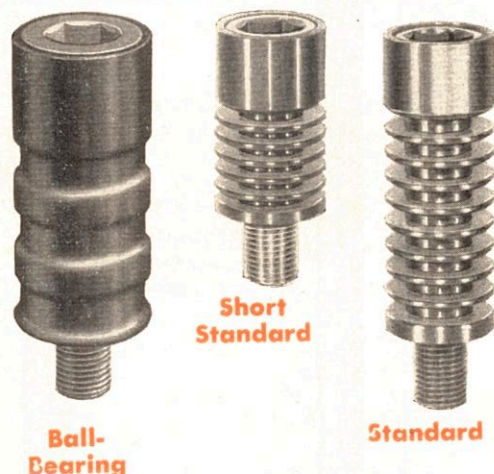




"ELECTRIC TOOL HEADQUARTERS"

"VIBRO-CENTRIC" REG. U.S. PAT. OFF.

AUTOMOTIVE STONE SLEEVES



Automotive Stone Sleeves

AUTOMOTIVE Seat-Grinding Stones have threaded bushings and are interchangeable on any of the following Automotive Sleeves which fit over Self-Centering Pilots and hold the stone in correct alignment with the pilot. Upper end of the sleeve is a hexagon socket which forms a universal joint with the Driver spindle.

Standard Automotive Stone Sleeve—Long bronze bushing accurately reamed to fit Pilot. Furnished with Automotive Kits and Valve Shops.

No. 22100 Standard Vibro-Centric Stone Sleeve.....\$3.50

Short Standard Automotive Stone Sleeve—For increased clearance on hard-to-reach seats. Overall length, 2 3/4". Use with Aircraft Pilots and Stand 25248; or Stand 20153 with 25247 Mandrel.

No. 23652 Short Standard Vibro-Centric Stone Sleeve.....\$3.50

Ball-Bearing Automotive Stone Sleeve—Designed to minimize wear, to preserve accuracy and give longer service. Ball-bearings are between inner and outer sleeve.

No. 27200 Ball-Bearing Stone Sleeve with retainer ball for "Gruv-Top" Pilots.....\$10.00

No. 19825 Ball-Bearing Stone Sleeve without retainer ball..... 2.55

No. 30582 Ball-Bearing Sleeve for Driver with 1/2" Hex. Spindle 10.50

No. 30780 Special Dressing Stand Mandrel for above Sleeves; has tapered round shank with flat for use with Dressing Stand having sliding block; does not fit 20153 or 25248 stands..... 2.25

Pilot Turning Wrench, to prevent injury to user's hands while inserting or removing Self-Centering or other Pilots. Equipped with chuck which quickly grasps or releases Pilot shank.

No. 19829 Pilot Turning Wrench.....\$4.50

Automotive Valve Seat Grinding Stones

Special Angle and Multiple-Angle Stones:

No. 24494 1 1/2" x 12° 30' (for Chevrolet).....\$2.15

No. 26284 1 7/8" x 90° x 30°..... 1.70

No. 24493 2 1/8" x 10° 45' and 35° (for Chevrolet)..... 2.55

No. 26285 2 5/16" x 30° x 20°..... 2.80

No. 25632 2 3/8" x 15° (Soft Seat)..... 2.55

No. 25638 2 3/8" x 15° (Finishing)..... 2.55

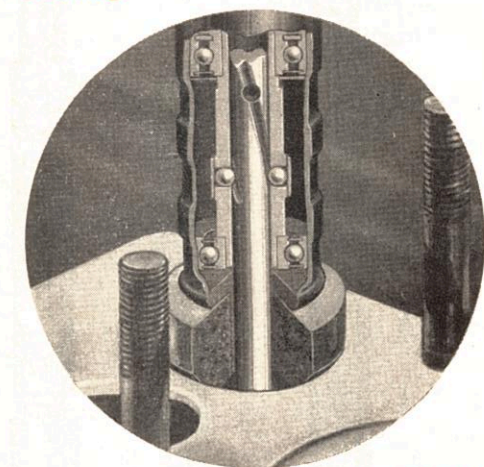
No. 26147 2 11/16" x 90° x 30°..... 2.55

No. 23968 3" x 45° x 20°..... 3.20

No. 27116 1 1/4" x 45° extra deep, for Hard Seats..... 2.55

No. 27117 1 1/4" x 45° extra deep, for Soft Seats..... 2.55

No. 27118 1 1/4" x 45° extra deep, for Finishing..... 2.55



CUTAWAY OF BALL-BEARING SLEEVE ON "GRUV-TOP" PILOT

Standard Automotive Vibro-Centric Stones

Size	For Soft Steel and Cast Iron				For Hard Steel and Stellite				Size	For Finish-Grinding		Price Each
	45° Stone	30° Stone	20° Stone	70° Stone	45° Stone	90° Stone	30° Stone	20° Stone		45° Stone	30° Stone	
1 1/4"	14216	14197			14217		14218		1 1/4"	14414	14413	\$1.70
1 3/8"	18541		23666		18540		23667		1 3/8"	18542		1.70
1 1/2"	14084	14198	14092		14056		14219	14107	1 1/2"	14382	14370	1.70
1 5/8"				23821					1 5/8"			1.70
1 3/4"	14063	14199	14093		14100		14287	14108	1 3/4"	14383	14371	1.70
1 13/16"	14085	14090	14094		14049		14105	14109	1 13/16"	14384	14372	1.70
1 7/8"	23957								1 7/8"			1.70
2"	14086	14268	14095		14101		14288	14110	2"	14385	14373	1.70
	14064	14091	14096		14102	15892	14106	14111		14386	14374	1.70
2 1/16"				23822					2 1/16"			2.10
2 1/8"	14087	14278	14097		14103		14289	14112	2 1/8"	14387	14375	2.10
2 1/4"	14088	14279	14098	23823	14104	15893	14290	14113	2 1/4"	14388	14376	2.10
2 3/8"	16929		23668	23824	16951			23669	2 3/8"	23670		2.10
2 1/2"	14089	14280	14099		14050		14291	14114	2 1/2"	14389	14377	2.10
2 5/8"	14285	14281	14274		14239	15894	14292	14270	2 5/8"	14390	14378	2.55
2 3/4"	14153	14282	14275		14200		14293	14271	2 3/4"	14391	14379	2.55
2 13/16"	26148								2 13/16"			2.55
2 7/8"	14286	14283	14276		14295		14269	14272	2 7/8"	14392	14380	2.55
3"	14154	14284	14277		14243		14294	14273	3"	14393	14381	2.55
3 1/8"					21464		16970		3 1/8"	21466		3.00
3 1/4"	21465	16971	25749		21467		25947	25950	3 1/4"	21469	25949	3.00
3 3/8"	21468	25948	25951		21470		26445	26448	3 3/8"	21472	26447	3.00
3 1/2"	21471	26446	26449		21473				3 1/2"	21475		3.00
	21474	26527										

Prices and Specifications of larger diameter stones can be secured on application.

"ELECTRIC TOOL HEADQUARTERS"

Black & Decker

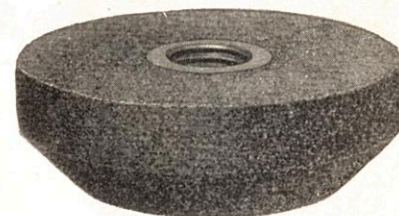
"VIBRO-CENTRIC"

REG. U. S. PAT. OFF.

Automotive Valve Seat Grinding Stones

"VIBRO-CENTRIC" Valve Seat Grinding Stones are carefully formed and accurately dressed at the factory to grind smooth, true faces on valve seats. They are made in three grades to do the fastest and most satisfactory work on all types of seats; one grade is for the average cast iron or soft steel seats found in most engines; another grade is for faster grinding of hard steel, stellite and other hard alloy inserts; a third grade is for a highly polished "finish grind" on all seats. An accurately-threaded steel bushing is cast in the center of each stone, to thread on the Automotive Stone Sleeves.

All "Vibro-Centric" Stones should be dressed when placed on a stone sleeve to establish a true angle to the pilot, and should be re-dressed when loaded or grooved to restore fast, smooth cutting surface. The Dressing Stand, on Page 48, performs this important dressing quickly and with no unnecessary waste of stone material.



Standard Automotive Vibro-Centric Stones (Numerically Arranged)

Cat. No.	Diameter	Face Angle	Type	Price Each	Cat. No.	Diameter	Face Angle	Type	Price Each	Cat. No.	Diameter	Face Angle	Type	Price Each
14049	1 3/4"	45°	Hard	\$1.70	14273	3"	20°	Hard	\$2.55	16951	2 3/8"	45°	Hard	\$2.10
14050	2 1/4"	45°	Hard	2.10	14274	2 5/8"	20°	Soft	2.55	16970	3 1/8"	30°	Hard	3.00
14056	1 1/2"	45°	Hard	1.70	14275	2 3/4"	20°	Soft	2.55	16971	3 1/8"	30°	Soft	3.00
14063	1 5/8"	45°	Soft	1.70	14276	2 7/8"	20°	Soft	2.55	18540	1 3/8"	45°	Hard	1.70
14064	2"	45°	Soft	1.70	14277	3"	20°	Soft	2.55	18541	1 3/8"	45°	Soft	1.70
14084	1 1/2"	45°	Soft	1.70	14278	2 1/8"	30°	Soft	2.10	18542	1 3/8"	45°	Finish	1.70
14085	1 3/4"	45°	Soft	1.70	14279	2 1/4"	30°	Soft	2.10	21464	3 1/8"	45°	Hard	3.00
14086	1 7/8"	45°	Soft	1.70	14280	2 1/2"	30°	Soft	2.10	21465	3 1/8"	45°	Soft	3.00
14087	2 1/8"	45°	Soft	2.10	14281	2 5/8"	30°	Soft	2.55	21466	3 1/8"	45°	Finish	3.00
14088	2 1/4"	45°	Soft	2.10	14282	2 3/4"	30°	Soft	2.55	21467	3 1/4"	45°	Hard	3.00
14089	2 1/2"	45°	Soft	2.10	14283	2 7/8"	30°	Soft	2.55	21468	3 1/4"	45°	Soft	3.00
14090	1 3/4"	30°	Soft	1.70	14284	3"	30°	Soft	2.55	21469	3 1/4"	45°	Finish	3.00
14091	2"	30°	Soft	1.70	14285	2 5/8"	45°	Soft	2.55	21470	3 3/8"	45°	Hard	3.00
14092	1 1/4"	20°	Soft	1.70	14286	2 7/8"	45°	Soft	2.55	21471	3 3/8"	45°	Soft	3.00
14093	1 5/8"	20°	Soft	1.70	14287	1 5/8"	30°	Hard	1.70	21472	3 3/8"	45°	Finish	3.00
14094	1 3/4"	20°	Soft	1.70	14288	1 7/8"	30°	Hard	1.70	21473	3 1/2"	45°	Hard	3.00
14095	1 7/8"	20°	Soft	1.70	14289	2 1/8"	30°	Hard	2.10	21474	3 1/2"	45°	Soft	3.00
14096	2"	20°	Soft	1.70	14290	2 1/4"	30°	Hard	2.10	21475	3 1/2"	45°	Finish	3.00
14097	2 1/8"	20°	Soft	2.10	14291	2 1/2"	30°	Hard	2.10	23666	1 3/8"	20°	Soft	1.70
14098	2 1/4"	20°	Soft	2.10	14292	2 5/8"	30°	Hard	2.55	23667	1 3/8"	20°	Hard	1.70
14099	2 1/2"	20°	Soft	2.10	14293	2 3/4"	30°	Hard	2.55	23668	2 3/8"	20°	Soft	2.10
14100	1 5/8"	45°	Hard	1.70	14294	3"	30°	Hard	2.55	23669	2 3/8"	20°	Hard	2.10
14101	1 7/8"	45°	Hard	1.70	14295	2 7/8"	45°	Hard	2.55	23670	2 3/8"	45°	Finish	2.10
14102	2"	45°	Hard	1.70	14370	1 1/2"	30°	Finish	1.70	23821	1 9/16"	70°	Soft	1.70
14103	2 1/4"	45°	Hard	2.10	14371	1 5/8"	30°	Finish	1.70	23822	2 1/16"	70°	Soft	2.10
14104	2 1/2"	45°	Hard	2.10	14372	1 3/4"	30°	Finish	1.70	23823	2 1/4"	70°	Soft	2.10
14105	1 3/4"	30°	Hard	1.70	14373	1 7/8"	30°	Finish	1.70	23824	2 3/8"	70°	Soft	2.10
14106	2"	30°	Hard	1.70	14374	2"	30°	Finish	1.70	23957	1 15/16"	45°	Soft	1.70
14107	1 1/2"	20°	Hard	1.70	14375	2 1/8"	30°	Finish	2.10	23968	3"	45°-20°	Soft	3.20
14108	1 5/8"	20°	Hard	1.70	14376	2 1/4"	30°	Finish	2.10	24493	2 1/8"	10° 45'-35°	Soft	2.55
14109	1 3/4"	20°	Hard	1.70	14377	2 1/2"	30°	Finish	2.10	24494	1 1/2"	12° 30'	Soft	2.15
14110	1 7/8"	20°	Hard	1.70	14378	2 5/8"	30°	Finish	2.55	25632	2 3/8"	15°	Soft	2.55
14111	2"	20°	Hard	1.70	14379	2 3/4"	30°	Finish	2.55	25638	2 3/8"	15°	Finish	2.55
14112	2 1/4"	20°	Hard	2.10	14380	2 7/8"	30°	Finish	2.55	25749	3 1/8"	20°	Soft	3.00
14113	2 1/2"	20°	Hard	2.10	14381	3"	30°	Finish	2.55	25947	3 1/4"	30°	Hard	3.00
14114	2 3/4"	20°	Hard	2.10	14382	1 1/2"	45°	Finish	1.70	25948	3 1/4"	30°	Soft	3.00
14153	2 3/4"	45°	Soft	2.55	14383	1 5/8"	45°	Finish	1.70	25949	3 1/4"	30°	Finish	3.00
14154	3"	45°	Soft	2.55	14384	1 3/4"	45°	Finish	1.70	25950	3 1/4"	20°	Hard	3.00
14197	1 1/4"	30°	Soft	1.70	14385	1 7/8"	45°	Finish	1.70	25951	3 1/4"	20°	Soft	3.00
14198	1 1/4"	30°	Soft	1.70	14386	2"	45°	Finish	1.70	26147	2 11/16"	90°-30°	Soft	2.55
14199	1 5/8"	30°	Soft	1.70	14387	2 1/8"	45°	Finish	2.10	26148	2 13/16"	45°	Soft	2.55
14200	2 3/8"	45°	Hard	2.55	14388	2 1/4"	45°	Finish	2.10	26284	1 7/8"	90°-30°	Soft	1.70
14216	1 1/4"	45°	Soft	1.70	14389	2 1/2"	45°	Finish	2.10	26285	2 5/16"	30°-20°	Soft	2.80
14217	1 1/4"	45°	Hard	1.70	14390	2 5/8"	45°	Finish	2.55	26445	3 3/8"	30°	Hard	3.00
14218	1 1/4"	30°	Hard	1.70	14391	2 3/4"	45°	Finish	2.55	26446	3 3/8"	30°	Soft	3.00
14219	1 1/4"	30°	Hard	1.70	14392	2 7/8"	45°	Finish	2.55	26447	3 3/8"	30°	Finish	3.00
14239	2 5/8"	45°	Hard	2.55	14393	3"	45°	Finish	2.55	26448	3 3/8"	20°	Hard	3.00
14243	3"	45°	Hard	2.55	14413	1 1/4"	30°	Finish	1.70	26449	3 3/8"	20°	Soft	3.00
14268	1 7/8"	30°	Soft	1.70	14414	1 1/4"	45°	Finish	1.70	26527	3 1/2"	30°	Soft	3.00
14269	2 7/8"	30°	Hard	2.55	15892	2"	90°	Hard	1.70	27116	1 1/4"	45°	Hard	2.55
14270	2 5/8"	20°	Hard	2.55	15893	2 1/4"	90°	Hard	2.10	27117	1 1/4"	45°	Soft	2.55
14271	2 3/4"	20°	Hard	2.55	15894	2 5/8"	90°	Hard	2.55	27118	1 1/4"	45°	Finish	2.55
14272	2 5/8"	20°	Hard	2.55	16929	2 3/8"	45°	Soft	2.10					



"ELECTRIC TOOL HEADQUARTERS"

Aircraft "VIBRO-CENTRIC" REG. U.S. PAT. OFF.

No. 421 Aircraft 30° Driver

EQUIPPED WITH long spindle, encased in aluminum housing, which reaches easily into cylinders of radial engines. 30° angle head brings driving spindle in line with valve guides. Gear train in angle head transmits full power; positive vibrating action built into spindle. Completely self-contained, there is no danger of the unit scarring or damaging the cylinder walls.

Spindle speed 10,000 R.P.M.; Overall length 20¾".
Weight: Net 9 lbs.; Shipping 10½ lbs.

Standard Equipment — 3-conductor cable and plug; instant-release trigger switch with locking pin; "universal" motor.

Standard Voltage — 110; also available for 220 or 250 volts.

Catalog No. 421 (specify voltage)

Price, complete **\$75.00**

70° Angle Head: The above Driver can be furnished with a 70° angle head, instead of the standard 30° angle head, at no extra cost. Equipped thus, the Driver is ideal for cab-over-engine trucks and "alligator" hood cars. If desired, specify "No. 421 Special with 70° Head."

**AIRCRAFT
VIBRO-CENTRIC
DRIVER**

No. 451 Straight Aircraft Driver

Instead of the 30° angle head, this unit has a straight geared head, in line with the spindle for special applications.

Net Weight 9 lbs.; Shipping 10½ lbs.
Overall length 21¼".

Other specifications same as above.

Catalog No. 451 (specify voltage)

Price, complete **\$90.00**

**AIRCRAFT
DRESSING
STAND**

No. 25248 Aircraft Stone Dressing Stand

A STURDY, flexible Stand with ample range and adjustments for truing and cleaning all sizes and types of Vibro-Centric Valve-Seat Grinding Stones. This Stand is equipped with a special mandrel, short to accommodate the short Aircraft Stone Sleeve, and grooved to take the retainer ball in this sleeve. Also equipped with micrometer diamond feed, angle indicator that is easily read and set and adjustments for vertical or horizontal cutting.

Stone Size Capacity up to 3½".

Mandrel Diameter ⅝"; Angle Adjustment 0° to 90°.

Weight: Net 10¼ lbs.; Shipping 11¼ lbs.

Standard Equipment — Diamond point; mandrel; adjustable feeding arm; micrometer diamond feed.

Catalog No. 25248 Aircraft Stone Dressing Stand \$20.00

Catalog No. 20157 Diamond Nib for No. 25248 Stand 3.50

No. 423 Aircraft Basic Kit

CONTAINS the basic Vibro-Centric Aircraft units around which complete aircraft valve-seat reconditioning equipment can be built. The kit has ample storage room for a large assortment of Stones and Pilots. Because of the variation in Stone and Pilot sizes required in this field, we do not include any set assortment of these items in the kit. When ordering, add the prices of Stones and Pilots required to the price of the kit, or send us engine specifications and we will recommend an assortment.

1 No. 421 Aircraft 30° Driver.

1 No. 25248 Aircraft Stone Dressing Stand.

2 No. 25500 Aircraft Ball-Bearing Stone Sleeves.

2 No. 25249 Pilot Wrenches for Plug Pilots.

1 No. 30767 Special Kit Box.

Catalog No. 423 (specify voltage)

Price, complete **\$138.00**

Catalog No. 30767 Special Kit Box, only \$20.00

AIRCRAFT BASIC KIT

"ELECTRIC TOOL HEADQUARTERS"

Black & Decker

AIRCRAFT "VIBRO-CENTRIC" SUPPLIES

Aircraft Vibro-Centric Stones

(Used only with Short Ball-Bearing Stone Sleeve)

THE AIRCRAFT (Short) Ball-Bearing Stone Sleeve requires Vibro-Centric Stones with larger-than-standard threaded bushings. Stones are available in three grades: for cast-iron and soft steel seats; for hard steel and stellite inserts; and for finishing-grinding.



Size	45° Stone—Cat. No.			30° Stone—Cat. No.			20° Stone—Cat. No.		90° Stone—Cat. No.			Price Each
	Hard Seat	Soft Seat	Finishing	Hard Seat	Soft Seat	Finishing	Hard Seat	Soft Seat	Hard Seat	Soft Seat	Finishing	
1 1/2"	25502	25503	25504	25599	25600	25601	25602	25603	.....	.....	.....	\$1.70
1 3/8"	25505	25506	25507	25562	25563	25564	25604	25605	.....	.....	.....	1.70
1 3/4"	25508	25509	25510	25565	25566	25567	25606	25607	.....	.....	.....	1.70
1 7/8"	25512	25513	25514	25568	25569	25570	25608	25609	25555	.....	.....	1.70
2"	25515	25516	25517	25571	25572	25573	25610	25611	.....	25620	25618	1.70
2 1/8"	25518	25519	25520	25574	25575	25576	25612	25613	25558	.....	25616	2.10
2 1/4"	25521	25522	25523	25577	25578	25579	25614	25615	25556	.....	25600	2.10
2 3/8"	25524	25525	25526	.....	.....	.....	.....	26805	25554	25621	25559	2.10
2 1/2"	25527	25528	25529	25580	25581	25582	.....	26861	.....	25619	25561	2.10
2 3/4"	25530	25531	25532	25584	25585	25586	.....	25748	.....	.....	.....	2.55
2 7/8"	25533	25534	25535	25587	25588	25589	.....	.....	25557	.....	25617	2.55
2 3/4"	25536	25537	25538	25590	25591	25592	.....	25746	.....	.....	.....	2.55
3"	25539	25540	25541	25593	25594	25595	.....	.....	.....	.....	.....	2.55
3 1/8"	25542	25543	25544	25596	25597	25598	.....	25747	.....	.....	.....	3.00
3 1/4"	25545	25546	25547	.....	.....	.....	.....	.....	.....	.....	.....	3.00
3 3/8"	25548	25549	25550	.....	.....	.....	.....	.....	.....	.....	.....	3.00
3 1/2"	25551	25552	25553	.....	.....	.....	.....	.....	.....	.....	.....	3.00

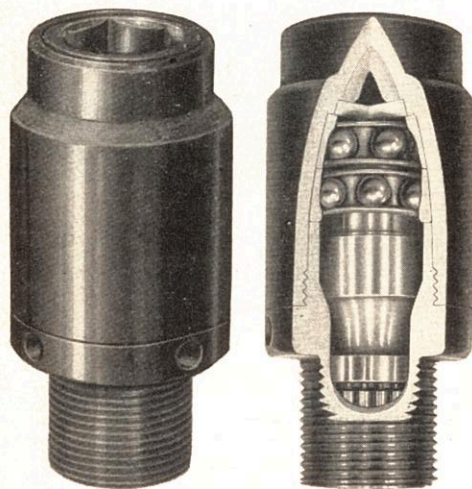
AIRCRAFT Vibro-Centric Stones (Listed Numerically)

Cat. No.	Diameter	Face Angle	Type	Price Each	Cat. No.	Diameter	Face Angle	Type	Price Each	Cat. No.	Diameter	Face Angle	Type	Price Each
25502	1 1/2"	45°	Hard	\$1.70	25544	3 1/8"	45°	Finish	\$3.00	25586	2 5/8"	30°	Finish	\$2.55
25503	1 1/2"	45°	Soft	1.70	25545	3 1/4"	45°	Hard	3.00	25587	2 3/4"	30°	Hard	2.55
25504	1 1/2"	45°	Finish	1.70	25546	3 1/4"	45°	Soft	3.00	25588	2 3/4"	30°	Soft	2.55
25505	1 5/8"	45°	Hard	1.70	25547	3 1/4"	45°	Finish	3.00	25589	2 3/4"	30°	Finish	2.55
25506	1 5/8"	45°	Soft	1.70	25548	3 3/8"	45°	Hard	3.00	25590	2 1/2"	30°	Hard	2.55
25507	1 5/8"	45°	Finish	1.70	25549	3 3/8"	45°	Soft	3.00	25591	2 1/2"	30°	Soft	2.55
25508	1 3/4"	45°	Hard	1.70	25550	3 3/8"	45°	Finish	3.00	25592	2 1/2"	30°	Finish	2.55
25509	1 3/4"	45°	Soft	1.70	25551	3 1/2"	45°	Hard	3.00	25593	3"	30°	Hard	2.55
25510	1 3/4"	45°	Finish	1.70	25552	3 1/2"	45°	Soft	3.00	25594	3"	30°	Soft	2.55
25512	1 7/8"	45°	Hard	1.70	25553	3 1/2"	45°	Finish	3.00	25595	3"	30°	Finish	2.55
25513	1 7/8"	45°	Soft	1.70	25554	2 3/8"	90°	Hard	2.10	25596	3 1/8"	30°	Hard	3.00
25514	1 7/8"	45°	Finish	1.70	25555	1 7/8"	90°	Hard	1.70	25597	3 1/8"	30°	Soft	3.00
25515	2"	45°	Hard	1.70	25556	2 1/4"	90°	Hard	2.10	25598	3 1/4"	30°	Finish	3.00
25516	2"	45°	Soft	1.70	25557	2 3/4"	90°	Hard	2.55	25599	1 1/2"	30°	Hard	1.70
25517	2"	45°	Finish	1.70	25558	2 1/8"	90°	Hard	2.10	25600	1 1/2"	30°	Soft	1.70
25518	2 1/8"	45°	Hard	2.10	25559	2 3/8"	90°	Finish	2.10	25601	1 1/2"	30°	Finish	1.70
25519	2 1/8"	45°	Soft	2.10	25560	2 1/4"	90°	Finish	2.10	25602	1 1/2"	20°	Hard	1.70
25520	2 1/8"	45°	Finish	2.10	25561	2 1/2"	90°	Finish	2.10	25603	1 1/2"	20°	Soft	1.70
25521	2 1/4"	45°	Hard	2.10	25562	1 5/8"	30°	Hard	1.70	25604	1 5/8"	20°	Hard	1.70
25522	2 1/4"	45°	Soft	2.10	25563	1 5/8"	30°	Soft	1.70	25605	1 5/8"	20°	Soft	1.70
25523	2 1/4"	45°	Finish	2.10	25564	1 5/8"	30°	Finish	1.70	25606	1 3/4"	20°	Hard	1.70
25524	2 3/8"	45°	Hard	2.10	25565	1 3/4"	30°	Hard	1.70	25607	1 3/4"	20°	Soft	1.70
25525	2 3/8"	45°	Soft	2.10	25566	1 3/4"	30°	Soft	1.70	25608	1 7/8"	20°	Hard	1.70
25526	2 3/8"	45°	Finish	2.10	25567	1 3/4"	30°	Finish	1.70	25609	1 7/8"	20°	Soft	1.70
25527	2 1/2"	45°	Hard	2.10	25568	1 7/8"	30°	Hard	1.70	25610	2"	20°	Hard	1.70
25528	2 1/2"	45°	Soft	2.10	25569	1 7/8"	30°	Soft	1.70	25611	2"	20°	Soft	1.70
25529	2 1/2"	45°	Finish	2.10	25570	1 7/8"	30°	Finish	1.70	25612	2 1/8"	20°	Hard	2.10
25530	2 5/8"	45°	Hard	2.55	25571	2"	30°	Hard	1.70	25613	2 1/4"	20°	Soft	2.10
25531	2 5/8"	45°	Soft	2.55	25572	2"	30°	Soft	1.70	25614	2 1/4"	20°	Hard	2.10
25532	2 5/8"	45°	Finish	2.55	25573	2"	30°	Finish	1.70	25615	2 1/4"	20°	Soft	2.10
25533	2 3/4"	45°	Hard	2.55	25574	2 1/8"	30°	Hard	2.10	25616	2 1/4"	90°	Finish	2.10
25534	2 3/4"	45°	Soft	2.55	25575	2 1/8"	30°	Soft	2.10	25617	2 3/4"	90°	Finish	2.55
25535	2 3/4"	45°	Finish	2.55	25576	2 1/8"	30°	Finish	2.10	25618	2"	90°	Finish	1.70
25536	2 7/8"	45°	Hard	2.55	25577	2 1/4"	30°	Hard	2.10	25619	2 1/2"	90°	Soft	2.10
25537	2 7/8"	45°	Soft	2.55	25578	2 1/4"	30°	Soft	2.10	25620	2"	90°	Soft	1.70
25538	2 7/8"	45°	Finish	2.55	25579	2 1/4"	30°	Finish	2.10	25621	2 3/8"	90°	Soft	2.10
25539	3"	45°	Hard	2.55	25580	2 1/2"	30°	Hard	2.10	25746	2 7/8"	20°	Soft	2.55
25540	3"	45°	Soft	2.55	25581	2 1/2"	30°	Soft	2.10	25747	3 1/8"	20°	Soft	3.00
25541	3"	45°	Finish	2.55	25582	2 1/2"	30°	Finish	2.10	25748	2 5/8"	20°	Soft	2.55
25542	3 1/8"	45°	Hard	3.00	25584	2 5/8"	30°	Hard	2.55	26805	2 3/8"	20°	Soft	2.10
25543	3 1/8"	45°	Soft	3.00	25585	2 5/8"	30°	Soft	2.55	26861	2 1/2"	20°	Soft	2.10



"ELECTRIC TOOL HEADQUARTERS"

AIRCRAFT "VIBRO-CENTRIC" SUPPLIES



**AIRCRAFT BALL-BEARING
STONE SLEEVE**

Aircraft (Short) Ball-Bearing Stone Sleeve

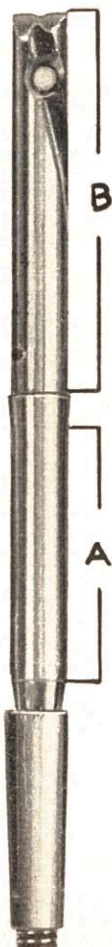
A PRECISION Sleeve designed for use with Aircraft (short-shank) Gruv-Top Pilots and Aircraft Vibro-Centric Stones. The Aircraft Ball-Bearing Sleeve is specially constructed to allow the maximum clearance in radial cylinder; in addition to the double-row ball-bearing between inner and outer sleeve, there is a needle bearing at the lower (threaded) end for compactness and accuracy. The overall length of this Sleeve is only $2\frac{3}{4}$ ". Aircraft Vibro-Centric Stones have large threaded bushings to fit this Sleeve. Retainer balls in the inner Sleeve fit the grooves of the Gruv-Top Pilots, preventing friction and wear between Sleeve and Pilot. Use with No. 25248 Dressing Stand or with No. 20153 Stand with No. 25247 Short Mandrel.

Cat. No. 25500 Aircraft (Short) Ball-Bearing Stone Sleeve.....\$12.50

"Gruv-Top" Aircraft Self-Centering Pilots

(Used only with Short Stone Sleeves)

THIS SPECIAL group of Pilots adapts the popular expanding feature of the Self-Centering Pilot to aircraft reconditioning, eliminating the necessity for a large stock of oversize Pilots. Two accurately machined tapers (one fitting top of guide and one at bottom on which split sleeve expands) provide a rigid, true axis for Vibro-Centric Stones. These special Aircraft Pilots have shorter-than-usual top shanks and are used only with short Stone Sleeves to provide maximum working clearance in cylinders. Grooves lock retainer balls in Aircraft Ball-Bearing Stone Sleeve, prevent friction and wear.



**AIRCRAFT
SELF-CENTERING PILOT**

Aircraft Expanding Sleeve Self-Centering Pilots

Nominal Size	Range	Catalog No.	Dimensions A	Dimensions B	Price Complete	Sleeve No.	Price of Sleeve
$\frac{5}{16}$ "— $\frac{21}{64}$ "	.308"—.339"	25279	$2\frac{1}{8}$ "	$2\frac{1}{16}$ "	\$5.90	13902	.75
$\frac{11}{32}$ "— $\frac{25}{64}$ "	.339"—.370"	25275	$1\frac{27}{64}$ "	$2\frac{1}{16}$ "	5.90	13904	.75
		25267	$1\frac{45}{64}$ "	$1\frac{15}{16}$ "	5.90	13904	.75
$\frac{3}{8}$ "— $\frac{25}{64}$ "	.371"—.394"	25280	$1\frac{1}{8}$ "	$2\frac{1}{16}$ "	5.90	13903	.75
		25281	$1\frac{5}{8}$ "	$2\frac{3}{4}$ "	5.90	13903	.75
$\frac{25}{64}$ "— $\frac{13}{32}$ "	.386"—.409"	25282	$1\frac{3}{8}$ "	$2\frac{1}{16}$ "	5.90	13903	.75
		25296	$1\frac{25}{32}$ "	3"	5.90	13903	.75
$\frac{13}{32}$ "— $\frac{27}{64}$ "	.402"—.424"	25261	$1\frac{13}{16}$ "	$2\frac{3}{16}$ "	5.90	13909	.75
$\frac{7}{16}$ "— $\frac{29}{64}$ "	.433"—.455"	25298	$1\frac{1}{8}$ "	$2\frac{1}{16}$ "	5.90	13901	.75
		25845	$1\frac{13}{16}$ "	2"	5.90	13901	.75
		25293	$1\frac{5}{8}$ "	$2\frac{5}{16}$ "	5.90	13901	.75
		25250	$1\frac{7}{8}$ "	$2\frac{3}{8}$ "	5.90	13901	.75
		25292	$2\frac{1}{8}$ "	$2\frac{5}{16}$ "	5.90	13901	.75
		25251	$2\frac{1}{4}$ "	$2\frac{1}{16}$ "	5.90	13901	.75
		25260	$1\frac{3}{4}$ "	$3\frac{1}{16}$ "	5.90	13901	.75
		25278	$2\frac{1}{8}$ "	3"	5.90	13901	.75
		25263	$3\frac{1}{8}$ "	$2\frac{1}{4}$ "	5.90	13901	.75
		25283	$2\frac{1}{8}$ "	$2\frac{1}{16}$ "	5.90	13901	.75
$\frac{29}{64}$ "— $\frac{15}{32}$ "	.449"—.472"	25262	$1\frac{45}{64}$ "	2"	5.90	13901	.75
$\frac{15}{32}$ "— $\frac{31}{64}$ "	.464"—.495"	25266	$1\frac{11}{16}$ "	$2\frac{3}{8}$ "	5.90	13910	.75
		25272	$2\frac{1}{8}$ "	$2\frac{1}{16}$ "	5.90	13910	.75
$\frac{1}{2}$ "— $\frac{17}{32}$ "	.496"—.535"	25252	$1\frac{23}{64}$ "	$2\frac{1}{8}$ "	5.90	13905	.75
		25254	$1\frac{35}{64}$ "	$2\frac{3}{8}$ "	5.90	13905	.75
		25291	$2\frac{21}{64}$ "	$2\frac{3}{8}$ "	5.90	13905	.75
		25253	$1\frac{35}{64}$ "	$2\frac{1}{16}$ "	5.90	13905	.75
		25286	$2\frac{13}{64}$ "	$2\frac{1}{16}$ "	5.90	13905	.75
$\frac{35}{64}$ "— $\frac{9}{16}$ "	.539"—.562"	26471	$3\frac{1}{32}$ "	$2\frac{5}{8}$ "	5.90	24497	1.00
$\frac{9}{16}$ "— $\frac{19}{32}$ "	.558"—.598"	25287	$1\frac{29}{64}$ "	$2\frac{3}{16}$ "	5.90	13899	1.00
		25265	$1\frac{45}{64}$ "	$2\frac{1}{4}$ "	5.90	13899	1.00
		25255	$2\frac{3}{8}$ "	$2\frac{5}{16}$ "	5.90	13899	1.00
		25269	$1\frac{45}{64}$ "	$2\frac{15}{16}$ "	5.90	13899	1.00
$\frac{19}{32}$ "— $\frac{5}{8}$ "	.590"—.630"	25277	$1\frac{41}{64}$ "	$2\frac{3}{4}$ "	5.90	13899	1.00
$\frac{5}{8}$ "— $\frac{21}{32}$ "	.621"—.661"	25256	$1\frac{35}{64}$ "	$2\frac{3}{16}$ "	5.90	13906	1.00
		25257	$2\frac{11}{64}$ "	$2\frac{1}{4}$ "	5.90	13906	1.00
		25290	$1\frac{41}{64}$ "	$2\frac{7}{8}$ "	5.90	13906	1.00
$\frac{21}{32}$ "— $\frac{11}{16}$ "	.651"—.691"	25270	$2\frac{51}{64}$ "	$2\frac{3}{8}$ "	5.90	13906	1.00
$\frac{11}{16}$ "— $\frac{25}{32}$ "	.683"—.723"	25258	$1\frac{5}{8}$ "	$2\frac{11}{32}$ "	5.90	15046	1.50

See next page for Aircraft Plug Pilots.

"ELECTRIC TOOL HEADQUARTERS" AIRCRAFT "VIBRO-CENTRIC" SUPPLIES

"Gruv-Top" Aircraft Plug Pilots (Used only with Short Stone Sleeves)

A SPECIAL group of Plug Pilots for use in aircraft engine reconditioning. Top shank is shortened for maximum clearance, and grooved for use with Aircraft Ball-Bearing Stone Sleeve. Lower end is threaded and Plug Pilot Wrench is used to draw the Pilot tight in the guide.

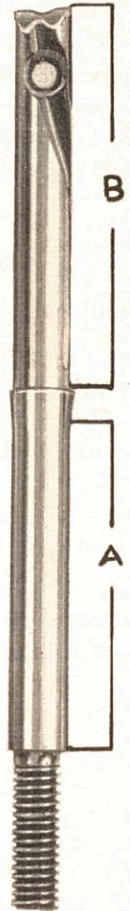
Catalog No.	Nominal Size	Decimal Size	Dimensions		Catalog No.	Nominal Size	Decimal Size	Dimensions	
			A	B				A	B
25029	$\frac{5}{16}$ "	.311"	$2\frac{7}{16}$ "	$2\frac{15}{32}$ "	25024	$\frac{11}{64}$ "	.483"	$2\frac{1}{8}$ "	$2\frac{5}{16}$ "
25029-1		.312"			25024-1		.484"		
25029-2		.313"			25024-2		.485"		
25029-3		.314"			25024-3		.486"		
25029-4		.315"							
25017	$\frac{11}{32}$ "	.343"	$1\frac{15}{16}$ "	2"	25002	$\frac{1}{2}$ "	.500"	2"	$2\frac{1}{4}$ "
25017-1		.344"			25002-1		.501"		
25017-2		.345"			25002-2		.502"		
25017-3		.346"			25002-3		.503"		
25025	$\frac{11}{32}$ "	.343"	$1\frac{5}{8}$ "	$2\frac{1}{4}$ "	25003	$\frac{1}{2}$ "	.4995"	$2\frac{1}{8}$ "	3"
25025-1		.344"			25003-1		.5005"		
25025-2		.345"			25003-2		.5015"		
25025-3		.346"			25003-3		.5025"		
25025-4		.347"							
25025-5		.348"			25004	$\frac{1}{2}$ "	.500"	2"	$2\frac{1}{2}$ "
25030	$\frac{3}{8}$ "	.3745"	$1\frac{5}{8}$ "	$2\frac{3}{16}$ "	25004-1		.501"		
25030-1		.3755"			25004-2		.502"		
25030-2		.3765"			25004-3		.503"		
25030-3		.3775"							
25031	$\frac{3}{8}$ "	.3745"	$2\frac{1}{16}$ "	$2\frac{3}{4}$ "	25035	$\frac{1}{2}$ "	.500"	$1\frac{15}{16}$ "	$2\frac{7}{16}$ "
25031-1		.3755"			25035-1		.501"		
25031-2		.3765"			25035-2		.502"		
25031-3		.3775"			25035-3		.503"		
25045	$\frac{3}{8}$ "	.3745"	$1\frac{3}{8}$ "	$2\frac{5}{16}$ "	25036	$\frac{1}{2}$ "	.500"	$2\frac{3}{16}$ "	$2\frac{7}{16}$ "
25045-1		.3755"			25036-1		.501"		
25045-2		.3765"			25036-2		.502"		
25045-3		.3775"			25036-3		.503"		
25032	$\frac{15}{64}$ "	.390"	2"	$2\frac{1}{16}$ "	25041	$\frac{1}{2}$ "	.500"	$2\frac{1}{2}$ "	$2\frac{1}{4}$ "
25032-1		.391"			25041-1		.501"		
25032-2		.392"			25041-2		.502"		
25032-3		.393"			25041-3		.503"		
25026	$\frac{25}{64}$ "	.388"	$2\frac{11}{16}$ "	$2\frac{5}{16}$ "	25005	$\frac{9}{16}$ "	.5625"	$2\frac{3}{16}$ "	$2\frac{3}{8}$ "
25026-1		.389"			25005-1		.5635"		
25026-2		.390"			25005-2		.5645"		
25026-3		.391"			25005-3		.5655"		
25026-4		.392"			25005-4		.5665"		
25026-5		.393"							
25011	$\frac{15}{32}$ "	.406"	2"	$2\frac{1}{16}$ "	25015	$\frac{9}{16}$ "	.5615"	2"	$2\frac{5}{16}$ "
25011-1		.407"			25015-1		.5625"		
25011-2		.408"			25015-2		.5635"		
25011-3		.409"			25015-3		.5645"		
25011-4		.404"			25019	$\frac{9}{16}$ "	.5625"	$2\frac{1}{8}$ "	$2\frac{15}{16}$ "
25011-5		.405"			25019-1		.5635"		
25000	$\frac{7}{16}$ "	.4365"	$2\frac{3}{16}$ "	$2\frac{3}{8}$ "	25019-2		.5645"		
25000-1		.4375"			25019-3		.5655"		
25000-2		.4385"			25037	$\frac{9}{16}$ "	.5625"	$1\frac{3}{4}$ "	$2\frac{3}{8}$ "
25000-3		.4395"			25037-1		.5635"		
25001	$\frac{7}{16}$ "	.4365"	$2\frac{3}{16}$ "	$2\frac{1}{16}$ "	25037-2		.5645"		
25001-1		.4375"			25037-3		.5655"		
25001-2		.4385"			25038	$\frac{9}{16}$ "	.5615"	3"	$2\frac{1}{2}$ "
25001-3		.4395"			25038-1		.5625"		
25010	$\frac{7}{16}$ "	.4350"	$2\frac{7}{8}$ "	$2\frac{5}{16}$ "	25038-2		.5635"		
25010-1		.4360"			25038-3		.5645"		
25010-2		.4370"			25014	$\frac{19}{32}$ "	.595"	$2\frac{1}{8}$ "	$2\frac{3}{4}$ "
25010-3		.4380"			25014-1		.596"		
25013	$\frac{7}{16}$ "	.4365"	$3\frac{1}{16}$ "	$2\frac{3}{16}$ "	25014-2		.597"		
25013-1		.4375"			25014-3		.598"		
25013-2		.4385"			25006	$\frac{5}{8}$ "	.625"	$2\frac{1}{8}$ "	$2\frac{1}{2}$ "
25013-3		.4395"			25006-1		.626"		
25028	$\frac{7}{16}$ "	.4370"	$2\frac{1}{2}$ "	3"	25006-2		.627"		
25028-1		.4380"			25006-3		.628"		
25028-2		.4390"			25007	$\frac{5}{8}$ "	.6215"	$2\frac{1}{2}$ "	$2\frac{5}{16}$ "
25028-3		.4400"			25007-1		.6225"		
25033	$\frac{7}{16}$ "	.4370"	$2\frac{3}{8}$ "	$1\frac{15}{16}$ "	25007-2		.6235"		
25033-1		.4380"			25007-3		.6245"		
25033-2		.4390"			25021	$\frac{5}{8}$ "	.6255"	$2\frac{7}{8}$ "	$2\frac{5}{16}$ "
25033-3		.4400"			25021-1		.6265"		
25042	$\frac{7}{16}$ "	.4375"	$2\frac{1}{2}$ "	$2\frac{1}{4}$ "	25021-2		.6275"		
25042-1		.4385"			25021-3		.6285"		
25042-2		.4395"			25023	$\frac{5}{8}$ "	.6215"	$2\frac{1}{8}$ "	$2\frac{3}{8}$ "
25042-3		.4405"			25023-1		.6225"		
25043	$\frac{7}{16}$ "	.4375"	$1\frac{7}{8}$ "	$2\frac{1}{4}$ "	25023-2		.6235"		
25043-1		.4385"			25023-3		.6245"		
25043-2		.4395"			25040	$\frac{5}{8}$ "	.6245"	$2\frac{1}{16}$ "	$2\frac{15}{16}$ "
25043-3		.4405"			25040-1		.6255"		
25012	$\frac{29}{64}$ "	.453"	2"	$2\frac{1}{16}$ "	25040-2		.6265"		
25012-1		.454"			25040-3		.6275"		
25012-2		.455"			25020	$\frac{21}{32}$ "	.6555"	$3\frac{1}{4}$ "	$2\frac{7}{16}$ "
25012-3		.456"			25020-1		.6565"		
25016	$\frac{15}{32}$ "	.466"	$1\frac{5}{16}$ "	$2\frac{7}{16}$ "	25020-2		.6575"		
25016-1		.467"			25020-3		.6585"		
25016-2		.468"			25020-4		.6595"		
25016-3		.469"			25020-5		.6605"		
25034	$\frac{15}{32}$ "	.468"	$2\frac{1}{8}$ "	$2\frac{1}{4}$ "	25020-6		.6515"		
25034-1		.469"			25020-7		.6525"		
25034-2		.470"			25020-8		.6535"		
25034-3		.471"			25020-9		.6545"		
25022	$\frac{21}{64}$ "	.483"	$2\frac{1}{2}$ "	$2\frac{7}{16}$ "	25008	$\frac{11}{16}$ "	.6865"	$2\frac{1}{2}$ "	$2\frac{3}{16}$ "
25022-1		.484"			25008-1		.6875"		
25022-2		.485"			25008-2		.6885"		
25022-3		.486"			25008-3		.6895"		
					25008-4		.6905"		
					25008-5		.6915"		

PRICE, each—All Aircraft Plug Pilots, as listed above, each..... \$2.90

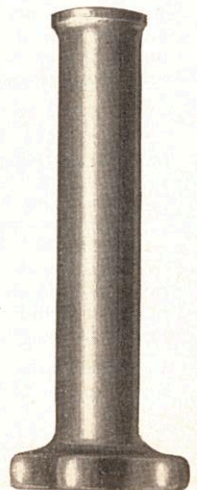
PLUG PILOT WRENCH—Used on threaded end of Plug Pilots to tighten Pilot in the valve stem guide,

No. 25249—Plug Pilot Wrench, each..... .55

Black & Decker



**AIRCRAFT
PLUG PILOT**



**PLUG PILOT
WRENCH**



"ELECTRIC TOOL HEADQUARTERS"

The Black & Decker Electric Valve Shop

(Illustrated on opposite page)

THE BLACK & DECKER Electric Valve Shop is the most complete merchandising "package" of precision valve reconditioning equipment on the market. This one cabinet includes everything necessary for a complete precision valve job, and it carries the complete equipment right to the job, saving time and energy in the shop. The modern streamlined appearance of the Valve Shop has great merchandising value, since it can be shown to a prospective customer; inspires confidence in your equipment and ability and helps you to explain the need and method of valve and valve-seat grinding.

The Super-Service Valve Refacer produces an absolutely smooth surface and true angle on valve faces. The Vibro-Centric Seat Grinder restores perfect accuracy and mirror finish to all types of valve seats, hard or soft. The complete Valve Shop is engineered to turn out perfectly matched gas-tight valve jobs quickly and profitably.

The cabinet's bench-top holds the Refacer and the Stone Dressing Stand at best working height. The large fitted drawer has trays for all seating stones, stone sleeves, self-centering pilots, carbon removing brushes and Refacer attachments with ample room for additional stones and pilots. The full size lower cabinet has storage space for the Vibro-Centric Driver, drills, gaskets and tools and other parts. Two removable valve trays on each side of the cabinet help to keep valves in correct order. The Valve Shop is equipped with an adjustable lamp; four electric outlets to plug in Refacer, Vibro-Driver, drill and hand lamp; extra long extension cord with third wire for grounding; and four large rubber-tired casters, which roll easily over rough floors.

The Electric Valve Shop is available in fourteen different combinations of equipment adapting it to the shop requirements and pocketbook of any shop doing valve work. This is really modern precision equipment which you will be proud to own.

Specifications

Cabinet Dimensions: Height.....	33"; width.....	35"; depth.....	20"
Shipping Weight: Complete Standard Valve Shop.....	302 lbs.		
Complete Heavy-Duty Valve Shop.....	312 lbs.		
Valve Shop Cabinet only.....	110 lbs.		

Standard Electric Valve Shop

- 1 Valve Shop Cabinet.
 - 1 Super-Service Refacer (Wet-Grinding or Standard).
 - 1 Standard Driving Unit (Straight or 55°).
 - 3 Valve Guide Cleaners:
21441 ($\frac{5}{16}$ "); 21445 ($\frac{3}{8}$ "); 21449 ($\frac{7}{16}$ ").
 - 2 Carbon Cleaning Brushes:
21416 (Heavy-Duty); 21417 (Side Flare).
 - 1 Standard Stone Dressing Stand—No. 20153.
 - 2 Standard Stone Sleeves—No. 22100.
 - 5 Self-Centering Pilots
 - 2 Hard-Seat Stones
 - 7 Soft-Seat Stones
 - 1 Finishing Stone
- As itemized in Standard
Universal Vibro-Centric Kit.

Standard Voltage — 110; also available for 220 or 250 volts.

Price, Standard Valve Shop, Complete (specify voltage) —
—with No. 115 Standard Straight Driver and —

$\frac{1}{16}$ " Standard Refacer (Cat. No. 509).....	\$342.00
$\frac{1}{4}$ " Standard Refacer (Cat. No. 510).....	352.00
$\frac{3}{8}$ " Wet-Grinding Refacer (Cat. No. 514).....	357.00
$\frac{1}{2}$ " Wet-Grinding Refacer (Cat. No. 515).....	367.00
—with No. 440 Standard 55° Driver and —	
$\frac{1}{16}$ " Standard Refacer (Cat. No. 465).....	348.00
$\frac{1}{4}$ " Standard Refacer (Cat. No. 466).....	358.00
$\frac{3}{8}$ " Wet-Grinding Refacer (Cat. No. 463).....	363.00
$\frac{1}{2}$ " Wet-Grinding Refacer (Cat. No. 464).....	373.00

Heavy-Duty Electric Valve Shop

- 1 Valve Shop Cabinet.
 - 1 Super-Service Refacer (Wet-Grinding or Standard).
 - 3 Valve Guide Cleaners:
21441 ($\frac{5}{16}$ "); 21445 ($\frac{3}{8}$ "); 21449 ($\frac{7}{16}$ ").
 - 2 Carbon Cleaning Brushes:
21416 (Heavy Duty); 21417 (Side Flare).
- Contents of Heavy-Duty Universal Vibro-Centric Kit; including Heavy-Duty Driving Unit, Standard Dressing Stand, 2 Standard Stone Sleeves, 5 Self-Centering Pilots, 8 Hard-Seat Stones, 7 Soft-Seat Stones, Pilot Turning Wrench.

Standard Voltage — 110; also available for 220 or 250 volts.

Prices — Heavy-Duty Electric Valve Shop, complete (specify voltage) —
—with

$\frac{1}{16}$ " Standard Refacer (Cat. No. 341).....	\$366.00
$\frac{1}{4}$ " Standard Refacer (Cat. No. 342).....	376.00
$\frac{3}{8}$ " Wet-Grinding Refacer (Cat. No. 339).....	381.00
$\frac{1}{2}$ " Wet-Grinding Refacer (Cat. No. 340).....	391.00

Price—Valve Shop Cabinet only (Cat. No. 31363) ... 57.00

Aircraft Valve Shops

These Valve Shops include a Super-Service Wet-Grinding Refacer, the Valve Shop Cabinet and the contents of the No. 423 Aircraft Basic Kit, minus the kit box.

Prices—Aircraft Electric Valve Shops (specify voltage)—

Cat. No. 449—with $\frac{1}{16}$ " Wet-Grinding Refacer....	\$374.00
Cat. No. 450—with $\frac{1}{4}$ " Wet-Grinding Refacer....	384.00

**THE COMPLETE
VALVE RECONDITIONING METHOD
FOR CARS, TRUCKS, TRACTORS, DIESELS,
POWER UNITS, GENERATING PLANTS
AND AIRPLANES**

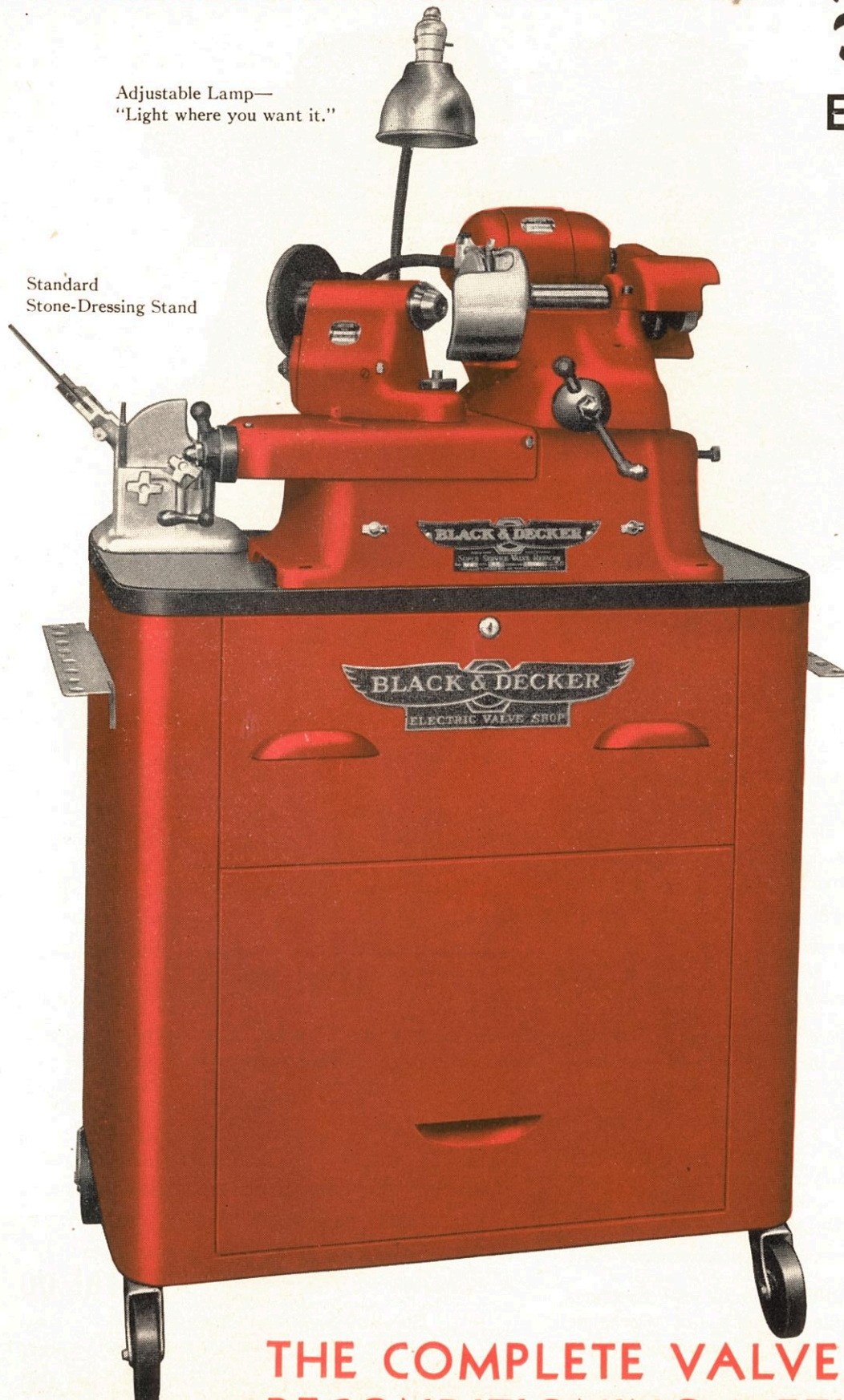
"ELECTRIC TOOL HEADQUARTERS"

**Black &
Decker**

ELECTRIC VALVE SHOP

Adjustable Lamp—
"Light where you want it."

Standard
Stone-Dressing Stand



Super-Service
Valve Refacer
(Wet or Dry Grinding)

Full Assortment of
Vibro-Centric
Stones, Sleeves, Pilots
in large fitted Drawer
equipped with lock

Handsome, Streamlined
Steel Cabinet finished
in brilliant red

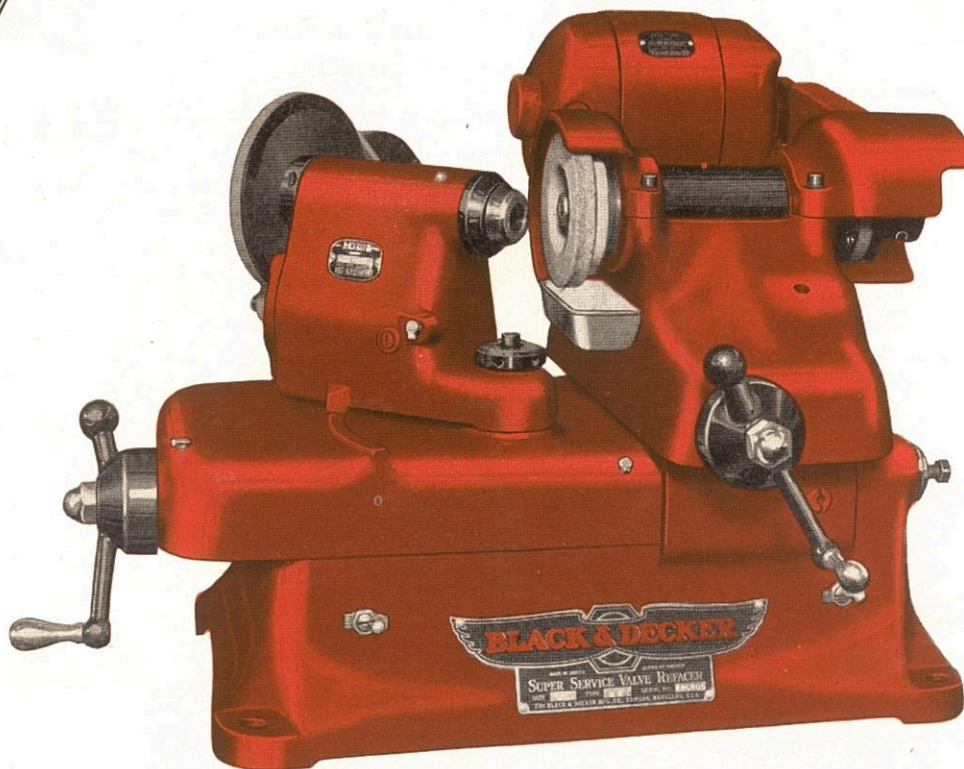
Storage Space for
Vibro-Centric
Driver, extra tools
and equipment.

Ball-bearing
rubber-tired casters.
"Roll to the car."

THE COMPLETE VALVE RECONDITIONING METHOD



"ELECTRIC TOOL HEADQUARTERS"



Standard Super-Service Valve Refacer (for Dry Valve Grinding) CATALOG Nos. 106 and 107

The Super-Service Valve Refacer produces an absolutely smooth surface and true angle on the valve face. The collet-head swivels to any desired angle from 30° to 90° and is clearly marked for most popular angles. Proven machine-tool construction features insure perfect finish. These features include:

Super Power — from two "universal" motors, independently driving the collet spindle and grinding wheel for abundant, smooth power.

Super-Speed Feed Screw — combining the accuracy of screw feed with the speed of lever feed. Bearing construction insures against sideplay and provides perfectly smooth operation of the feed screws.

Super-Sensitive Slides — 3-point bearing suspension of feed tables achieves a sensitive, smooth slide action, so important to accurate high-finish valve grinding. This construction eliminates periodic gib adjustment and insures permanent accuracy.

Super-Service Grinding Spindle — Extended, double-end wheel spindle permits use of Micrometer Attachment or grinding wheel on outer end of spindle, without disturbing the refacing set-up. Ball-bearing wheel spindle of unit construction, for smoother grinding and correct alignment.

Specifications

Valve Stem Capacity:

$\frac{9}{16}$ " Refacer, equipped with one collet—
 $\frac{9}{32}$ " to $\frac{9}{16}$ ".

$1\frac{1}{16}$ " Refacer, equipped with two collets—
 $\frac{9}{32}$ " to $1\frac{1}{16}$ ".

Valve Head Capacity up to $3\frac{1}{2}$ ".

Angle Adjustment — The work-head is easily adjusted and marked for any standard angle from 30° to 90°.

Motors — are "universal," operating on either direct or alternating current.

Standard Equipment — 2 "universal" motors, pulleys and V-belts; one 4" grinding wheel for hard valves; one combination diamond wheel-dresser and V-block; Allen set-screw wrench; one dust pan; and 3-wire cable with attachment plug.

Weight: Net 143 lbs.

Shipping 163 lbs.

Standard Voltage — 110; also available for 220 or 250 volts.

$\frac{9}{16}$ " Standard Super-Service Refacer,
complete with one collet ($\frac{9}{32}$ "-
 $\frac{9}{16}$ "); specify voltage.

Catalog No. 106, Price **\$185.00**

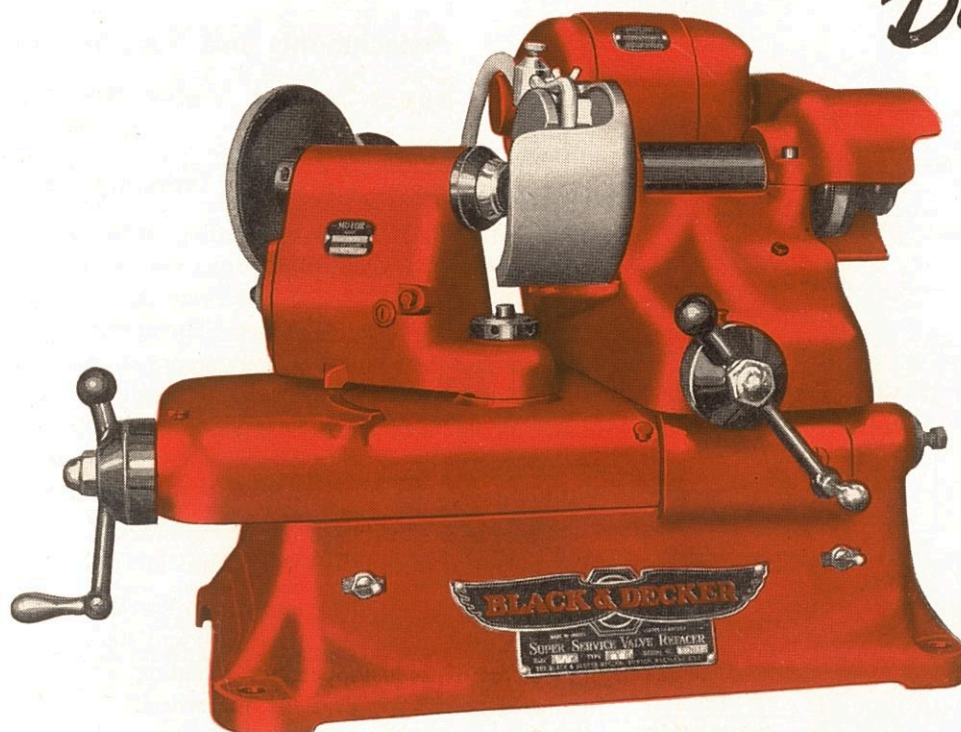
$1\frac{1}{16}$ " Standard Super-Service Refacer,
complete with two collets ($\frac{9}{32}$ "-
 $\frac{9}{16}$ " and $\frac{1}{2}$ "- $1\frac{1}{16}$ ").

Catalog No. 107, Price **\$195.00**

See Pages 60 and 61 for Attachments.

"ELECTRIC TOOL HEADQUARTERS"

Black & Decker



Wet Grinding Super-Service Valve Refacer (with Electric Pump)

CATALOG Nos. 281 and 282

The Super-Service WET-GRINDING Valve Refacer increases the speed of grinding. It reduces heat and prevents burning, permitting the operator to make heavier cuts. It produces an absolutely smooth surface on the valve face, comparable to the finest tool-room results.

The Wet-Grinding mechanism consists of solution tank, divided into two compartments; a centrifugal pump with independent "universal" motor; two tubes fitted into the tank cover, one drawing the filtered solution from the smaller compartment through a regulating valve, to a tube in a special wheel-guard which directs a steady stream onto the grinding wheel. A hinged splash-guard prevents loss of fluid. A return-trough in wheel-guard carries the solution through tubing back to the tank.

Other features of this Refacer include **Super-Power** with two "universal" motors, independently driving collet and wheel spindles; **Super-Speed Feed Screws** with improved bearing construction; **Super-Sensitive Slides** with 3-point bearing suspension of feed tables; and **Super-Service Grinding Spindle** of ball-bearing construction, double-ended to provide for valve stem and rocker arm grinding.

Specifications

Valve Stem Capacity:

$\frac{9}{16}$ " Refacer, equipped with one collet —
 $\frac{9}{32}$ " to $\frac{9}{16}$ ".

$1\frac{1}{16}$ " Refacer, equipped with two collets—
 $\frac{9}{32}$ " to $1\frac{1}{16}$ ".

Valve Head Capacity.....up to $3\frac{1}{2}$ ";

Angle Adjustment 30° to 90° ;

Weight: Net146 lbs.;

Shipping174 lbs.

Standard Equipment — 2 "universal" motors with pulleys and V-belts; one solution tank with "universal" motor electric pump, cover and tubing; 3-wire cable and plug; one 4" grinding wheel; one wheel dresser and V-block with diamond; one wet-grinding wheel-guard, splash-guard and regulating valve; one Allen set-screw wrench; can of grinding compound.

Standard Voltage — 110; also available for 220 or 250 volts.

$\frac{9}{16}$ " Super-Service Wet-Grinding Refacer,
Complete with one collet— $\frac{9}{32}$ "- $\frac{9}{16}$ "

Catalog No. 281, Price.....**\$200.00**

$1\frac{1}{16}$ " Super-Service Wet-Grinding Refacer,
Complete with two collets— $\frac{9}{32}$ "- $\frac{9}{16}$ "
and $\frac{1}{2}$ "- $1\frac{1}{16}$ ".

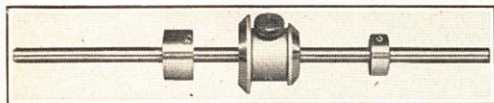
Catalog No. 282, Price.....**\$210.00**

See Pages 60 and 61 for Attachments.

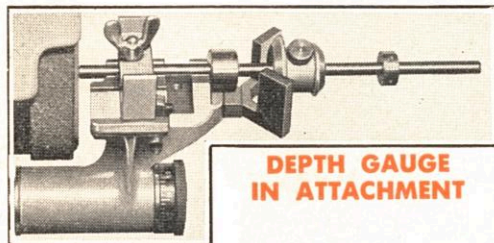


"ELECTRIC TOOL HEADQUARTERS"

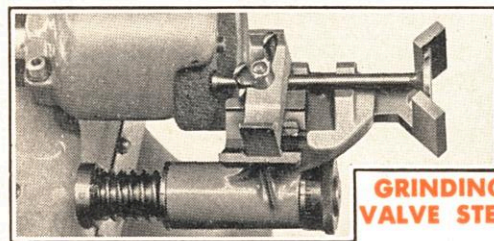
Attachments and Supplies for Super-Service Valve Refacers



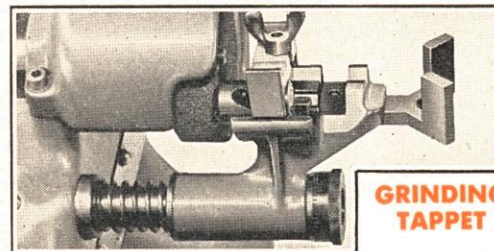
UNIVERSAL DEPTH GAUGE



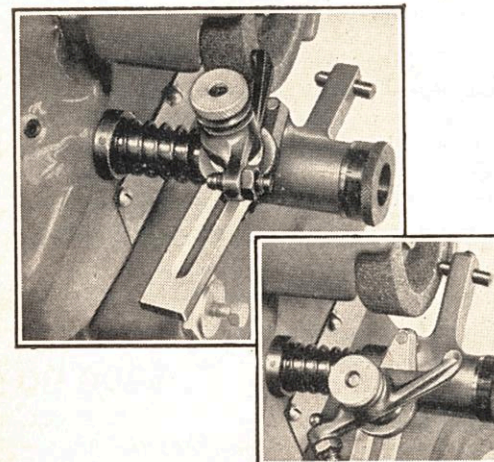
**DEPTH GAUGE
IN ATTACHMENT**



**GRINDING
VALVE STEM**



**GRINDING
TAPPET**



**ROCKER ARM
GRINDING ATTACHMENT**

Micrometer Valve Stem Grinding Attachment

A "UNIVERSAL" stem grinding attachment for obtaining exact tappet clearance on all Ford valves and other valves not having tappet adjustments. The same attachment will also grind and true Ford and other tappets. The accuracy and simplicity of this attachment will save many hours of guess work. Fits all Super-Service (Standard or Wet-Grinding) Refacers, and operates on the outer end of the wheel spindle; does not interfere with the refacing set-up. The complete Micrometer Valve Stem Grinding Attachment consists of the following items:

A "universal" V-block and clamp bracket, with adjustable V-port bushings for all Ford V-8, four- and six-cylinder engines.

A "universal" B-block and clamp bracket, with adjustable V-stop, adapted to varying head sizes and stem lengths. The clamp bracket also holds tappets for grinding and truing, and holds diamond point* for dressing the wheel.

A sensitive micrometer feed, clearly calibrated in thousandths, mounted on a carefully machined bar, which fits in wheel spindle housing.

A special recessed wheel, trued across the flat face to insure proper squaring of stems and tappets.

A set of sleeves to cover and protect the shaft and spring of the Attachment, when used for wet grinding with No. 24247 Wet-Grinding Attachment.

Complete as described for use either with or without Wet Attachment listed on next page.

Catalog No. 18252 Complete Micrometer Valve Stem
Grinding Attachment as detailed above **\$21.25**

Rocker Arm Grinding Attachment

OPERATES on outer end of Refacer wheel spindle. Consists of a micrometer feed mounted on a machined bar. A bracket holds a diamond point* for dressing the wheel, and an adjustable arm, pivoted and slotted to permit the grinding of various size Rocker Arms. A double-cone clamp holds the Rocker-Arm and is adjusted for bore of the Rocker Arm to be ground. A set of sleeves to cover and protect the shaft and spring of the Attachment, when used for wet grinding with No. 24247 Wet-Grinding Attachment. Grinding Wheel is not included with the attachment. Use No. 20939 Wheel.

Catalog No. 20949 Rocker Arm Grinding Attachment..... **\$15.00**

* Use diamond point supplied with Refacer. Attachment fits all Super-Service Refacers. Can be used with or without Wet Attachment.

Attachments and Supplies for Super-Service Valve Refacers

Wet Attachment for Valve Stem and Rocker Arm Grinding

FOR OWNERS of **Wet-Grinding** Super-Service Refacers, a wet-grinding attachment is available for use in connection with the Micrometer Valve Stem Grinding Attachment and Rocker Arm Grinding Attachment. The wet-grinding attachment consists of a two-way valve replacing the Refacer regulating valve, which diverts the solution to the wet-grinding attachment; a regulating valve which controls the amount of fluid applied to the wheel; a special splash-guard and return-trough to be attached to the outer end of the grinding spindle in place of the regular outer-end guard; and necessary tubing to carry the solution to the attachment and back to the same solution tank used for wet-grinding the valves. The Wet-Grinding Attachment can be used **only** on Wet-Grinding Refacers, and must be ordered **in addition** to the Micrometer Valve Stem Grinding Attachment or Rocker Arm Grinding Attachment, as it includes none of these attachment parts.

Catalog No. 24247 Wet-Grinding Attachment, complete... **\$20.00**

For Grinding 15° and 90° Valves

A special recessed wheel and wheel-dressing attachment are available for the Super-Service Refacers, to facilitate the grinding of 90° (flat) valves and 15° valves. The attachment is used to dress a 30° angle on the wheel.

Use diamond point supplied with Refacer. Attachment fits all Super-Service Refacers. Can be used with or without Wet Attachment.

Cat. No. 19898 Dressing Attachment, and special wheel, complete...\$8.25

Cat. No. 19897 Special Wheel only for 15° and 90° Valves..... 2.70

Replacement and Special Refacer Wheels

Cat. No. 31471 Standard 4" Wheel for Hard Valves.....\$2.70

Cat. No. 16371 Special 4" Wheel for Stellite Valves..... 2.45

Cat. No. 20939 4" Recessed Wheel for Micrometer Attachment and Rocker Arm Grinding Attachment..... 2.40

Cat. No. 19897 Special Recessed Wheel for 15° and 90° Valves.. 2.70

Cat. No. 22813 Special Fine-grade 4" Refacer Wheel..... 2.70

Replacement and Special Refacer Equipment

Cat. No. 18325 Standard Collet ($\frac{9}{32}$ "- $\frac{9}{16}$ " capacity).....\$ 8.00

Cat. No. 15200 Standard Collet ($\frac{1}{2}$ "- $1\frac{1}{16}$ " capacity)..... 10.00

Cat. No. 26060 Special Collet for short valve stems ($\frac{1}{4}$ "- $\frac{7}{16}$ " capacity) 8.00

Cat. No. 17745 Special Collet for short valve stems ($\frac{1}{2}$ "- $1\frac{1}{16}$ " capacity) 10.00

Cat. No. 20934 Wheel Dresser and V-block without Diamond... 1.50

Cat. No. 5574 Diamond and Nib for all Wheel Dressers..... 3.00

Cat. No. 16286 V-Belt for Work (Collet) Spindle..... .50

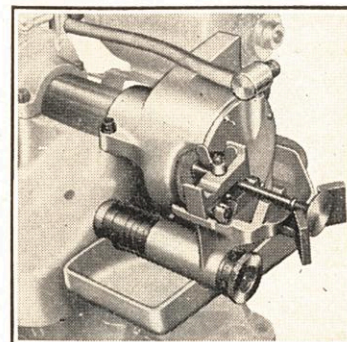
Cat. No. 23617 V-Belt for Wheel Motor..... .50

Cat. No. 20380 8-oz. Container Wet Grinding Compound..... .35

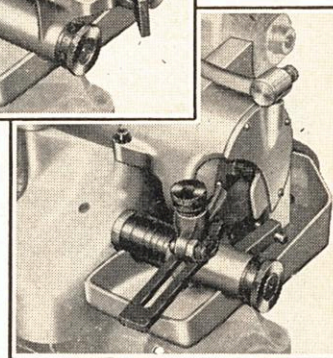
Cat. No. 22946 Pint Container Wet Grinding Compound..... .60

Cat. No. 22947 Quart Container Wet Grinding Compound..... .95

Cat. No. 22173 Adjustable Lamp, with Socket, Switch, etc..... 5.40

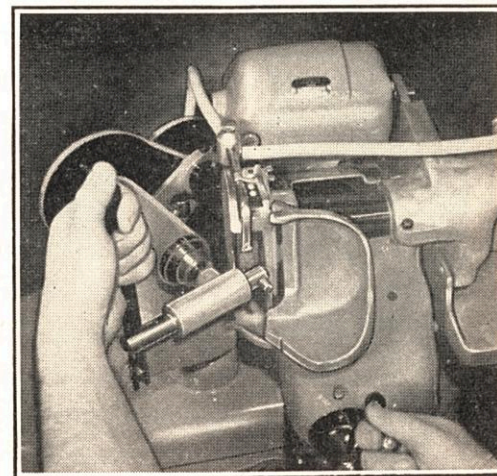


**FOR
VALVE
STEM
GRINDER**



**FOR
ROCKER
ARM
GRINDER**

WET ATTACHMENT



**15° AND 90° VALVE
GRINDING ATTACHMENT**



"ELECTRIC TOOL HEADQUARTERS"

Carbon Cleaning Tools

For use with 1/4" Electric Drill

THE THOROUGH removal of carbon deposits is one of the most important operations in complete valve reconditioning. A bright, burnished surface will retard carbon accumulation in the completed job. Use the Carbon Cleaning Tools listed below to remove quickly and completely all carbon from combustion chamber, piston heads and valves.

Valve Guide Cleaners (A)

Made of spring wire set spirally about a stem and expanded to give heavy cleaning tension. A few strokes with this Cleaner driven by a 1/4" Drill thoroughly cleans and polishes the Valve Guide.

Cat. No.	Minimum Size	Maximum Size	Price	Cat. No.	Minimum Size	Maximum Size	Price
21436	1/4"	to 9/32"	\$.98	21453	1/2"	to 35/64"	\$1.12
21441	5/16"	to 23/64"	.98	21456	9/16"	to 39/64"	1.12
22810	11/32"	to 25/64"	.98	21460	5/8"	to 43/64"	1.12
21445	3/8"	to 27/64"	.98	17682	3/4"	to 25/32"	1.50
21449	7/16"	to 31/64"	1.12	15125		Ford V-85	1.45
				22375		Ford V-60	1.70

Carbon Removing Brushes

Made of tempered steel wire; used with 1/4" Drills, quickly clean carbon from cylinder heads, top of pistons, valve ports, etc., leaving a burnished surface.

21416	Heavy-duty solid wire-filled brush (B)	.....	\$ .85
21417	Side flare brush for close corner work (C)	.....	1.28
21418	Small brush for cleaning valve-guide ports	.....	.75
21419	Hollow core, flare bottom brush (D)	.....	.81

Wire Wheel Brush

For cleaning valves, top of block, etc. Driven by 1/4" Drill. Compactly made with maximum amount of spring tempered wire.

21397	4" Wire Wheel Brush	.....	\$1.28
3071	Arbor to attach 4" brush to 1/4" Drill	.....	.85
23046	Bench Stand for 1/4" Drill	.....	3.15

No. 10 Valve Lapper

CATALOG No. 118

THE VALVE LAPPER has operating balance, smooth lines and a powerful "universal" motor for positive, smooth operation.

The spindle oscillates back and forth with a long steady sweep, lapping valves in a fraction of the time formerly required by hand.

Bits of various shapes are provided to fit different style valves.

A lift spring placed under the head of the valve lifts it from the seat when pressure is not applied to the Lapper.

"Universal" motor operates on either alternating or direct current.

Specifications:

Speed.....500 oscillations a minute.

Weight: Net....6 1/4 lbs. Shipping.....7 3/4 lbs.

Overall length.....14"

Standard Equipment — 3-conductor cable with plug; 2 detachable bits for various types of valves; suction cup for plain valves and lift spring.

Standard Voltage — 110; also available for 220 or 250 volts.

Catalog No. 118 (specify voltage)

Price\$55.00

Attachments:

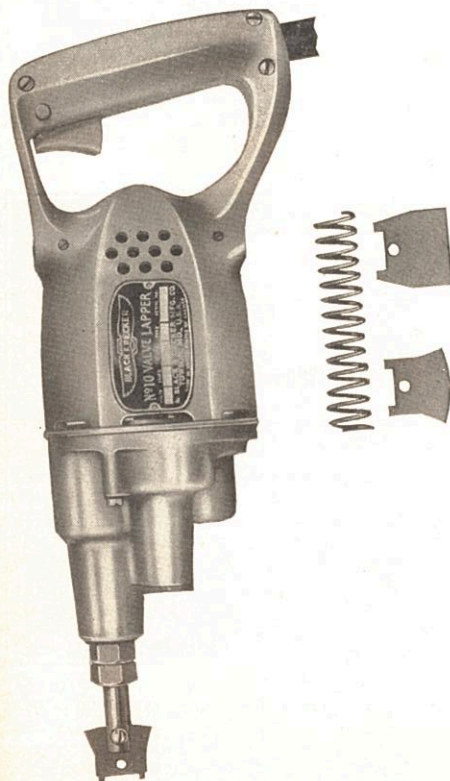
No. 4065 Extension Spindle.....\$2.50

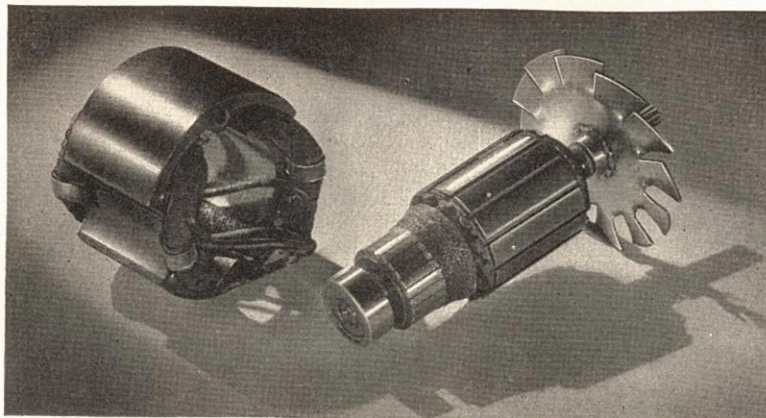
No. 31472 Lift Spring......25

No. 31473 Bit for slotted valves......25

No. 1035 Blank Bit......25

No. 6695 Suction Cup for plain valves......15





MOTORS

The motor is the "heart" of any electric tool. It must produce ample power to supply the necessary amount of torque, or turning effort, at the most efficient spindle speed. It must be held to definite weight and size limits, so that the tool it drives is not too bulky or heavy for constant production service.

All motors in Black & Decker Electric Tools (except Bench Grinders) are "universal" motors; i.e., they will operate on either direct current or single-phase alternating current of 25 to 60 cycles of the specified voltage. Every Black & Decker Tool is powered by a Black & Decker motor, designed and built in the B & D plant for the specific tool it is intended to drive. By designing and building our own motors, we can control the specifications to exact limits and you can depend on a reliable source of power that is neither too strong nor too weak; neither too large nor too small; neither too fast nor too slow for the job you want the tool to do. In every Black & Decker Tool, the motor is "tailor-made" to provide the right power, the correct torque at the proper speed. It contains ample material of the highest quality to deliver long service.

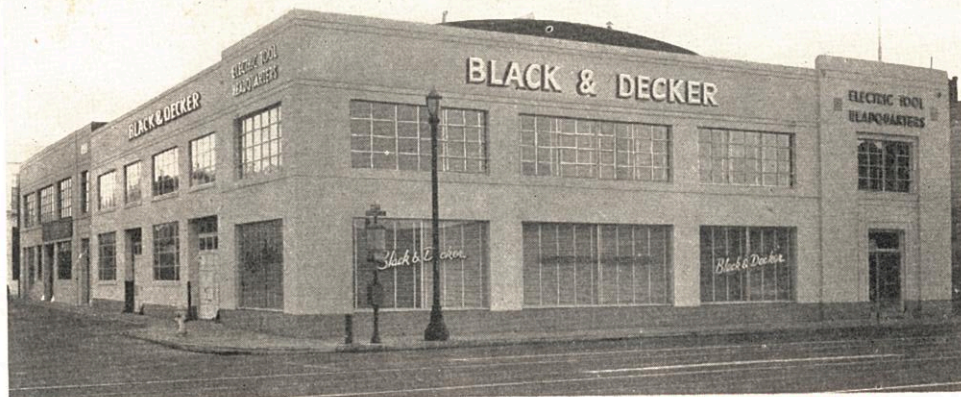
The Black & Decker Guarantee

"Every electric tool has been carefully inspected before shipment, and we guarantee to replace any defect due to faulty material or workmanship. Our obligation assumed under this guarantee is limited to making replacement of any part or parts returned to us at our factory, or to our authorized service stations, transportation charges prepaid, which prove to our satisfaction upon examination to have been defective and which have not been misused or carelessly handled. We reserve the right to decline responsibility where repairs have been made or attempted by others. This guarantee is in lieu of any other liability on our electric tools or parts. None other is authorized."



"ELECTRIC TOOL HEADQUARTERS"

FACTORY SERVICE NEAR YOU



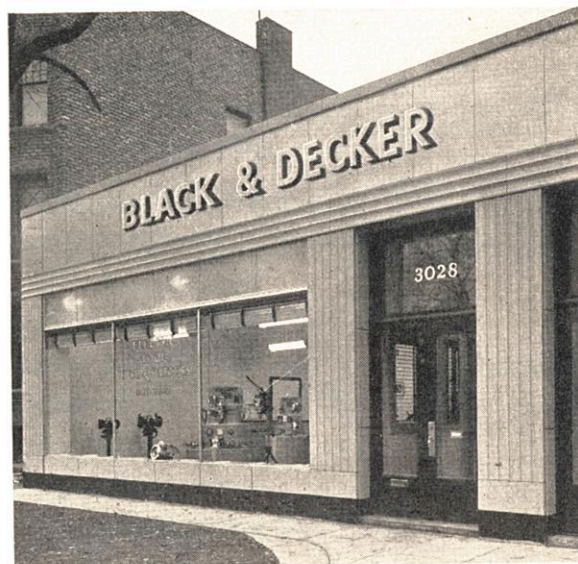
SAN FRANCISCO WAREHOUSE, SALES AND SERVICE BRANCH

Among owners of quality mechanical products, the natural tendency is to look to "the Factory" when those products eventually show wear and need service attention. And this is as it should be; certainly the manufacturer who built these tools is best qualified to service them. But in most cases, "the Factory" is too far away and there are serious delays and inconveniences in having the tool put in working condition.

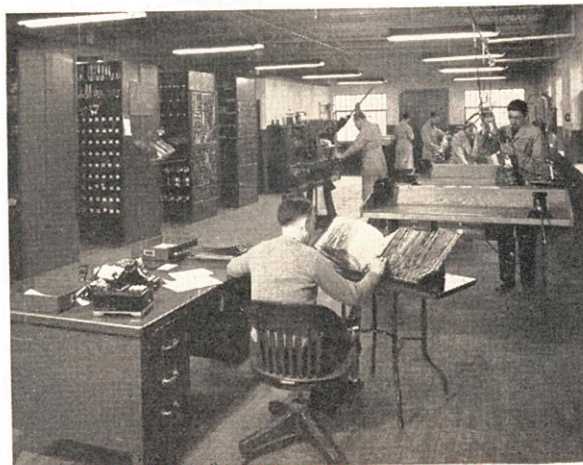
Black & Decker has always recognized the importance of "Factory Service" and to assure you prompt, efficient service on all Black & Decker Products, we operate 25 Factory-operated Service Branches conveniently located at strategic points throughout the United States and Canada. These Service Branches are manned by factory-trained personnel, stocked with genuine Black & Decker service and replacements parts and equipped with all necessary machinery to render complete, guaranteed service.

Periodic inspection of your Black & Decker tools will prevent serious damage, minimize costly repairs and increase the productive life of your equipment. When you need "Factory Service" you will find a Black & Decker Service Branch within 24 hours of you, ready to give you every attention you would receive at Towson.

At these modern, well-equipped Factory Branches you will also find a display of Black & Decker products and experienced Sales Representatives who will be glad to help you solve your electric tool problems. Use Black & Decker, through your Distributor, at Towson or at one of our Factory Branches as—



**DETROIT BRANCH OFFICE
SALES AND SERVICE**



**EFFICIENT FACTORY-TRAINED
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OF PARTS AT ALL BRANCHES**

"ELECTRIC TOOL HEADQUARTERS"

Black & Decker

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BUFFALO 8, NEW YORK.....17 EAST UTICA STREET
CHICAGO 16, ILLINOIS.....2009 SOUTH MICHIGAN AVENUE
CLEVELAND 15, OHIO.....21ST AT CARNEGIE AVENUE
DALLAS 1, TEXAS.....2613 ROSS AVENUE
DENVER 2, COLORADO.....708 EIGHTEENTH STREET
DETROIT 2, MICHIGAN.....3028 EAST GRAND BOULEVARD
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"ELECTRICAL TOOL HEADQUARTERS"
TOWSON 4, MARYLAND, U. S. A.



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